CHANGE

NO. 2

HEADQUARTERS
DEPARTMENT OF THE ARMY
Washington, D.C., 2 March 2002

**UNIT
MAINTENANCE MANUAL**

VOLUME 3 OF 5

**BRIDGE LAUNCHING CARRIER:
M104 WOLVERINE
(5420-01-430-5403)**

TM 5-5420-232-20-3, dated 01 March 2001, is changed as follows:

1. Remove old pages and insert new pages as indicated below.
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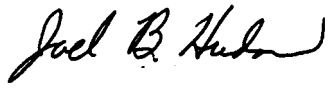

JOEL B. HUDSON
Administrative Assistant to the
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TECHNICAL MANUAL

HEADQUARTERS
DEPARTMENT OF THE ARMY
Washington, D.C., *1 March 2001*

UNIT MAINTENANCE MANUAL

VOLUME 3 OF 5

BRIDGE LAUNCHING CARRIER M104 WOLVERINE (5420-01-430-5403)

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NOTE

This manual is divided into five volumes. Chapters 4 thru 9 are contained in this volume. Chapters 1, 2, and part of Chapter 3 are contained in TM 5-5420-232-20-1. The remainder of Chapter 3 is contained in TM 5-5420-232-20-2. Chapters 10 thru 18 are contained in TM 5-5420-232-20-4. Chapters 19 thru 28 are contained in TM 5-5420-232-20-5.

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VOLUME 3

EXHAUST DUCT NUT, COVERS, SCREW ASSEMBLED CHAIN, AND WASHER REPLACEMENT (Sheet 1 of 2)

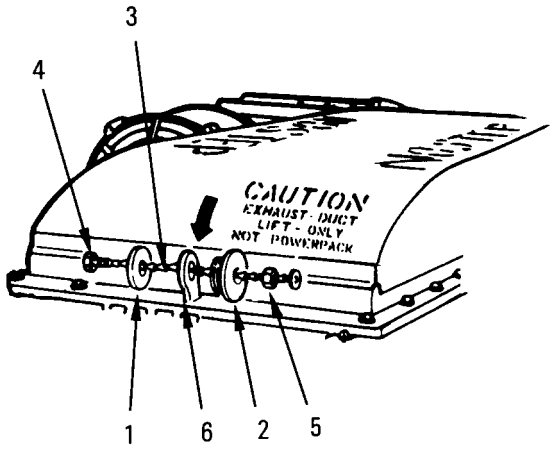
TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)
Arc welding machine (Item 288, Appendix E)
Blacksmith's apron (Item 14, Appendix E)
Cutting and welding torch outfit (Item 278, Appendix E)
Torque wrench, 0-175 ft-lb (Item 324, Appendix E)
Welder's gloves (Item 91, Appendix E)
Welder's helmet (Item 111, Appendix E)
Welder's industrial goggles (Item 93, Appendix E)

SUPPLIES: Brazing flux (Item 60, Appendix C)
Flat washer (Item 473, Appendix G)
Metal strip (Item 115, Appendix C)
Screw assembled chain (Item 35, Appendix G)
Self-locking nut (Item 543, Appendix G)
Welding electrode (Item 56, Appendix C)
Welding rod (Item 96, Appendix C)

EQUIPMENT CONDITION: Turbine exhaust duct removed (page 4-5)

REMOVAL:

1. REMOVE COVERS (1, 2).
   a. Cut chain (3) near end of screw (4).
   b. Remove self-locking nut (5) and screw (4) from covers (1, 2) in lifting eye (6).
2. INSPECT PARTS FOR DAMAGE. REPLACE AS REQUIRED.



INSTALLATION:

1. INSTALL COVERS (1, 2).
   a. Position covers (1, 2) in lifting eye (6).
   b. Pull new chain (3) and screw (4) through covers (1, 2) and lifting eye (6).
   c. Install new nut (5).
2. TIGHTEN AND TORQUE SCREW (4) BETWEEN 85-90 LB-FT (115-122 N•m).

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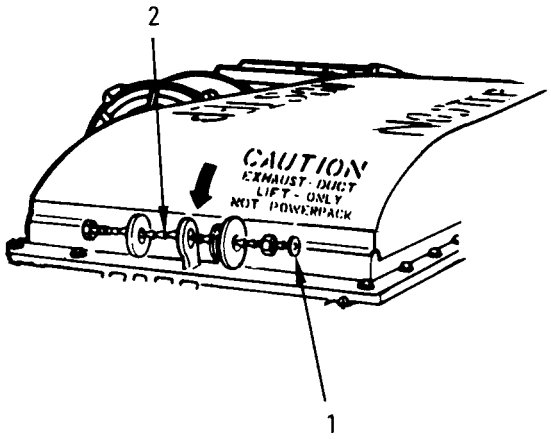
2w3565

EXHAUST DUCT NUT, COVERS, SCREW ASSEMBLED CHAIN, AND WASHER REPLACEMENT (Sheet 2 of 2)

3. ATTACH NEW WASHER (1) TO CHAIN (2).
   a. Place metal strip (3) on exhaust duct (4) near lifting eye (5).
   b. Place new washer (1) on strip (3). Place chain (2) on washer (1) so end of chain (2) is even with hole in washer (1).



WARNING

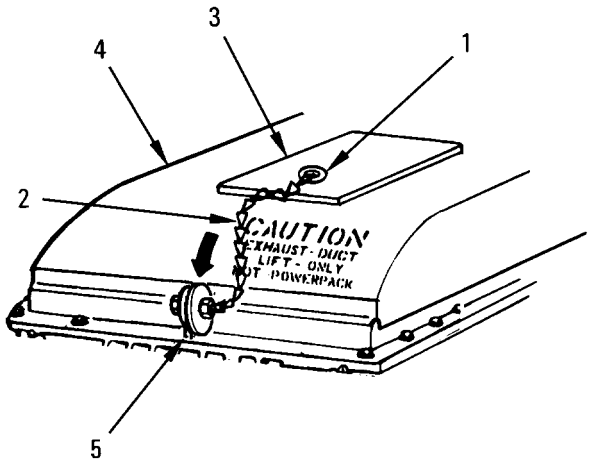
- Wear protective clothing (apron, leather gloves, and goggles or helmet) when cutting, grinding, or welding. Failure to do so may result in serious injury.
- Never carry a gas-fueled cigarette lighter (propane, butane, etc.) in your pocket while welding, cutting, or grinding. Sparks may cause it to ignite and injure you.

NOTE

For brazing, skip step d. For welding, skip step c.

   c. Braze chain (2) to washer (1) with brazing rod.
   d. Weld chain (2) to washer (1) with electrode.
   e. Remove strip (3) from duct (4).

4. INSTALL TURBINE EXHAUST DUCT (PAGE 4-8).



End of Task

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TURBINE EXHAUST DUCT REPLACEMENT (Sheet 1 of 6)

TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)
Access cover (Item 38, Appendix E)
Chemical and oil protective gloves (Item 90, Appendix E)
Crowbar (Item 40, Appendix E)
Engine and transmission sling (Item 205, Appendix E)
Hoist, 1000-pound capacity (Item 112, Appendix E)
Industrial goggles (Item 92, Appendix E)
Torque wrench, 0-20 KgM (Item 321, Appendix E)
Torque wrench, 0-175 ft-lb (Item 324, Appendix E)

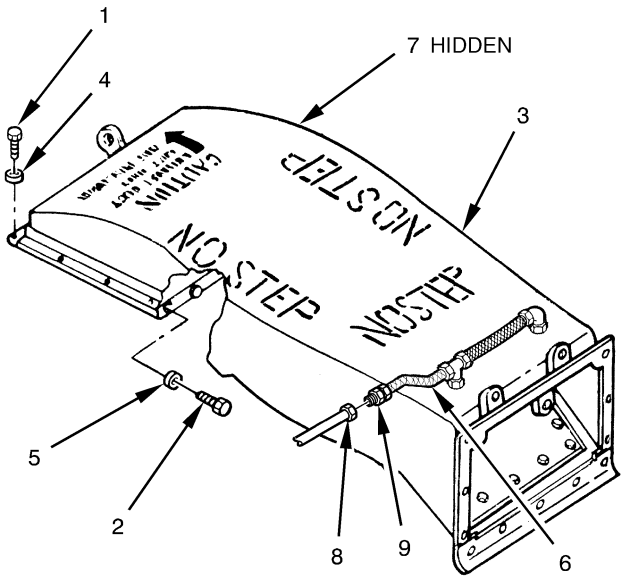
SUPPLIES: Antiseize compound (Item 20, Appendix C)
Cleaning compound (Item 36, Appendix C)
Dry cleaning solvent (Item 48, Appendix C)
Wiping rag (Item 94, Appendix C)

PERSONNEL: Three

EQUIPMENT CONDITION: Top deck and grilles removed (page 18-4)
Engine step plate removed (page 4-11)
Engine rear exhaust duct seals removed (page 4-1)
Upper fan assembly airflow baffle removed (page 8-3)
Upper side airflow baffle removed (page 8-4)
Transmission fluid cooler crossover hose assembly removed (page 10-88)

REMOVAL:

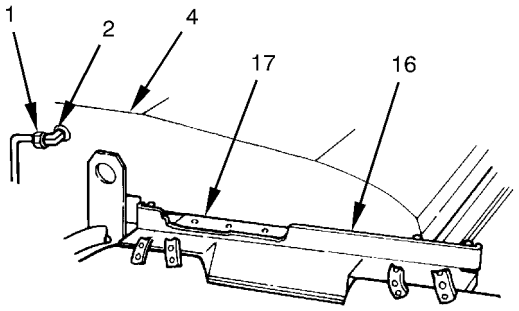
1. REMOVE 17 SCREWS (1, 2) HOLDING DUCT (3) TO POWERPACK.
   a. Remove 11 screws (1) and recessed washers (4) from duct (3).
   b. Reach under duct (3) from left side and remove three screws (2) and recessed washers (5).
   c. Reach under duct (3) from right side and remove three screws (2) and washers (5).
2. DISCONNECT HOSE (6) AND TUBE (7) AND MOVE TUBE (7) OUT OF THE WAY.
   a. Disconnect and pull tube nut (8) away from reducer (9).



Go on to Sheet 2

TURBINE EXHAUST DUCT REPLACEMENT (Sheet 2 of 6)

b. Disconnect tube nut (1) from pipe-to-tube elbow (2) and pull nut (1) away from elbow (2).



NOTE

Lead soldier directs operation of hoist.

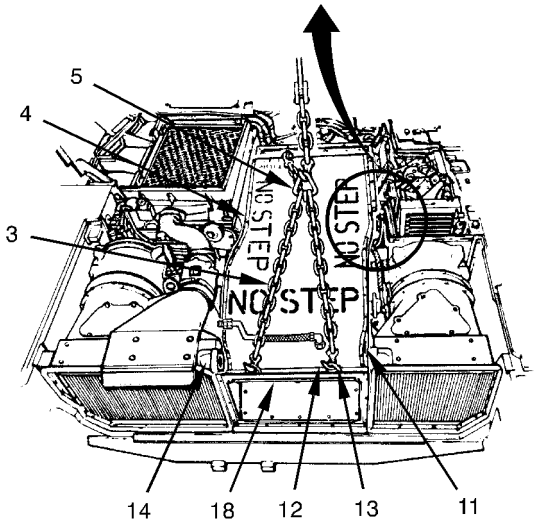
3. HOOK SLING (3) TO DUCT (4) AND HOIST HOOK (5).

   a. Remove nut (6) and cover (7) from screw (8) and cover (9) in front lifting eye (10) and let parts hang on chain (11).

   b. Hook three sling hooks (12) to three lifting eyes (10, 13) on duct (4). Hook sling (3) to hoist hook (5).

CAUTION

Do not scratch left and right transmission fluid cooler crossover hose flanges (14) when removing duct (4). Scratched flanges (14) will cause oil leaks and damage to transmission.



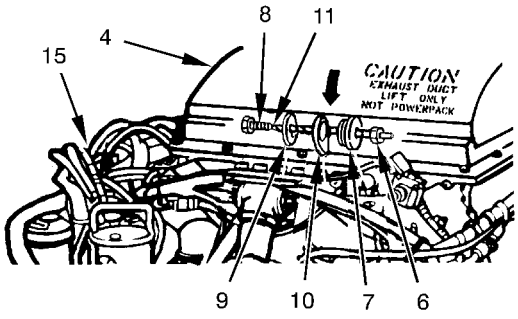
4. LOOSEN AND MOVE DUCT (4) OFF POWERPACK (15) TO CLEAN WORK AREA AND REMOVE SLING (3).

   a. Gently pry cable duct (16) off right side of flange (17) of duct (4) until duct (16) clears flange (17).

   b. Push duct (4) forward as far as it will go. Operate hoist to slowly lift duct (4) about 1 inch (2.54 cm) from powerpack (15).

   c. Push duct (4) toward rear of tank until rear flange (18) on duct (4) clears two flanges (14). Operate hoist to slowly lift duct (4) from powerpack (15) and move to clean work area.

   d. Remove sling (3) from hoist hook (5) and three lifting eyes (10, 13). Remove sling (3) from duct (4).



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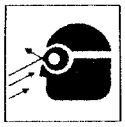
TURBINE EXHAUST DUCT REPLACEMENT (Sheet 3 of 6)

INSPECTION:

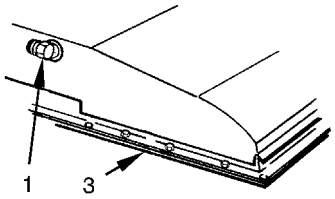
WARNING



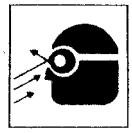
1. REMOVE AND INSPECT ELBOW (1) AND GASKET (2) FOR DAMAGE. REPLACE AS REQUIRED.

   a. Remove elbow (1) from duct (3) and inspect for pits, stripped threads, or carbon buildup. Remove carbon buildup with cleaning compound. Replace as required.

   b. Remove gasket (2) from flange (4) and inspect for breaks or deposits of exhaust smoke. Replace as required.



WARNING



2. INSTALL ACCESS COVER (5) AND INSPECT DUCT (3) FOR DAMAGE. DISASSEMBLE AND REPLACE DUCT (3) AS REQUIRED.

   a. Install cover (5) over regenerator opening (6) to keep dirt, moisture, and other objects out of engine.

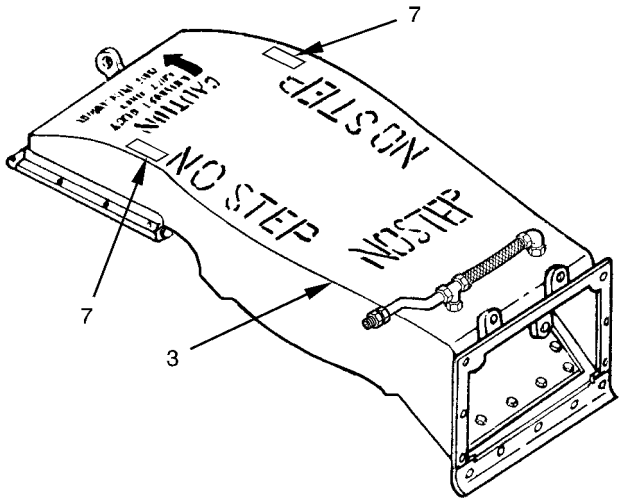
   b. Inspect duct (3) for damage, missing caution markers (7) or rivets, or exhaust smoke deposits on outer skin. If damaged, do steps c thru e. If either caution marker (7) is missing or damaged, do step f.

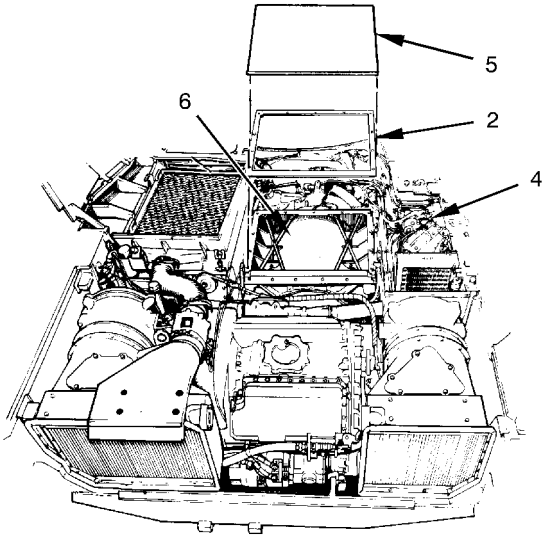
   c. Remove fuel discharge tube assemblies and pipe to tube elbows (tube assembly to nozzles) (page 21-27).

   d. Remove fuel spray nozzles (page 21-29).

   e. Remove exhaust duct door assembly panel (page 4-2), and replace duct (3).

   f. Scrape off old marker (7). Clean marker area with solvent and rag. Activate adhesive on new marker (7) with solvent and install on duct (3).





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TURBINE EXHAUST DUCT REPLACEMENT (Sheet 4 of 6)

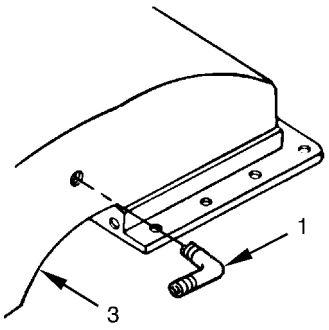
INSTALLATION:

1. INSTALL ELBOW (3) AND GASKET (2).

   a. Install elbow (3) in duct (1) with open end of elbow (3) pointed to rear of duct (1).

   b. Remove cover (4) from opening (5) and stow.

   c. Apply antiseize compound on both sides of gasket (2) and position gasket (2) on engine flange (6) with holes alined.



NOTE

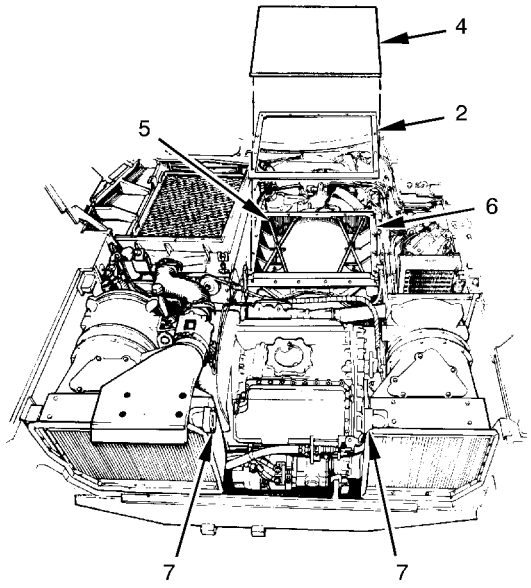
If duct (3) was replaced, do step 2.

2. ASSEMBLE NEW DUCT (3).

   a. Install exhaust duct door assembly panel (page 4-2).

   b. Install fuel spray nozzles (page 21-29).

   c. Install fuel discharge tube assemblies and pipe to tube elbows (tube assembly to nozzles) (page 21-28).



CAUTION

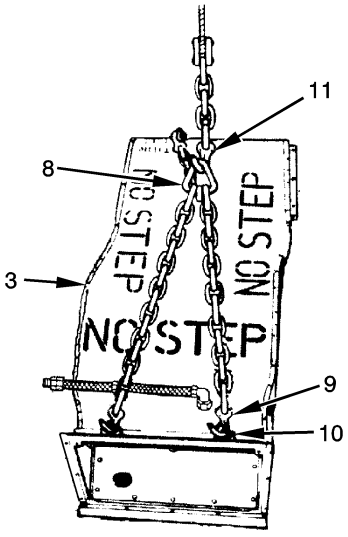
Do not scratch left and right flanges (7) when installing duct (3). Scratched flanges (7) will cause oil leaks and damage to transmission.

NOTE

Lead soldier directs operation of hoist.

3. ATTACH SLING (8) AND LIFT, MOVE, AND LOWER DUCT (3) IN PLACE.

   a. Hook three sling hooks (9) on lifting eyes (10). Hook sling (8) to hoist hook (11).



Go on to Sheet 5

TURBINE EXHAUST DUCT REPLACEMENT (Sheet 5 of 6)

b. Operate hoist and lift duct (1) over powerpack (2) and aline so that rear flange (3) will clear two flanges (4) when lowered.

c. Operate hoist and slowly lower duct (1) on powerpack (2).

4. SEAT DUCT (1) AND ALINE HOLES.

a. Gently pry duct (5) away from powerpack (2) until duct (5) is clear of flange (6) on duct (1).

b. Push down on duct (1) until duct (5) is in place on flange (6) and then push duct (1) forward, down, and then back to seat inside flange (7) of duct (1) against outer edge (8) of flange (9).

c. Aline screw holes in duct (1), gasket (10), and flange (9).

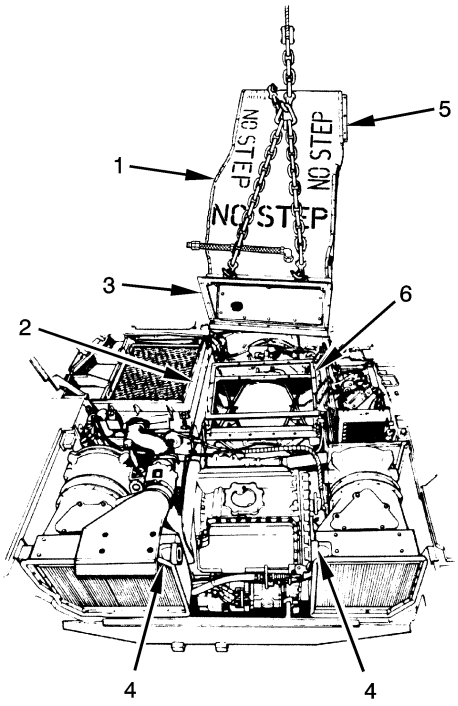
5. INSTALL 17 SCREWS (11, 12) TO SECURE DUCT (1) TO POWERPACK (2).

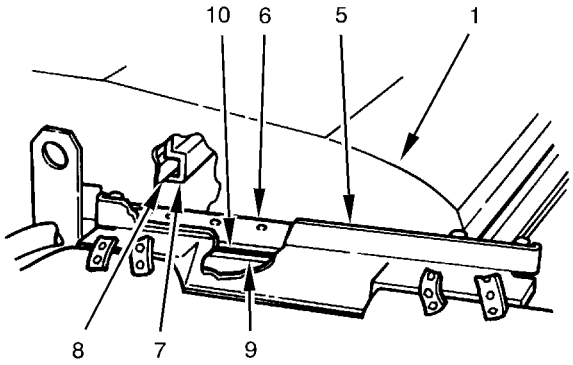
a. Apply antiseize compound on threads of eleven 2-inch screws (11) and loosely install screws (11) and washers (13).

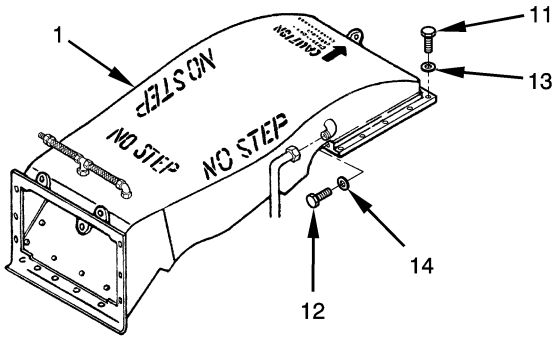
b. Apply antiseize compound on threads of six 2-1/2 inch screws (12) and reach under left side of duct (1) and install three screws (12) and washers (14).

c. Reach under right side of duct (1) and install three remaining screws (12) and washers (14).

6. TIGHTEN AND TORQUE SCREWS (11) BETWEEN 4-5 KILOGRAM-METERS (30-35 LB-FT).







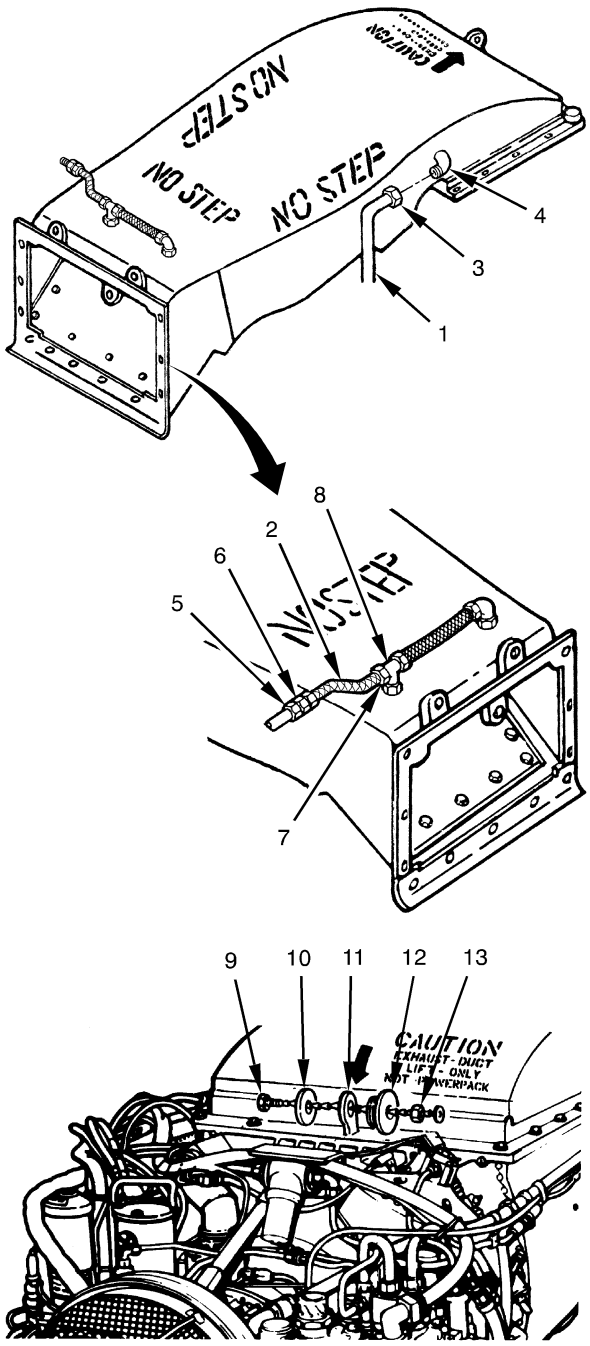
Go on to Sheet 6

TURBINE EXHAUST DUCT REPLACEMENT (Sheet 6 of 6)

WARNING

Make sure smoke generator tubes and fittings are properly alined and tightened. A fuel leak could result in an engine compartment fire.

7. CONNECT TUBE (1) AND HOSE (2).
   a. Connect nut (3) to elbow (4).
   b. Connect nut (5) to reducer (6).
   c. Tighten nut (7) to tee (8).
8. PUT SCREW (9) THROUGH COVER (10), LIFTING EYE (11), AND COVER (12). INSTALL NUT (13). TORQUE SCREW (9) BETWEEN 85-90 LB-FT (115-122 N•m).
9. INSTALL TRANSMISSION FLUID COOLER CROSSOVER HOSE ASSEMBLY (PAGE 10-89).
10. INSTALL UPPER SIDE AIRFLOW BAFFLE (PAGE 8-4).
11. INSTALL UPPER FAN ASSEMBLY AIRFLOW BAFFLE (PAGE 8-3).
12. INSTALL ENGINE REAR EXHAUST DUCT SEALS (PAGE 4-1).
13. INSTALL ENGINE STEP PLATE (PAGE 4-11).
14. INSTALL TOP DECK AND GRILLES (PAGE 18-5).



End of Task

3w6408

POWERPACK REPLACEMENT (Sheet 10 of 25)

14. LOWER POWERPACK (1) AND REMOVE SLING (2).

    a. Lower powerpack (1) in place on wood blocks (3) and lower hoist until three chains (4) are loose enough to be unhooked.

    b. Remove pin (5) from clevis (6). Remove clevis (6) from powerpack (1) and install pin (5) in clevis (6).

    c. Unhook two chain hooks (7) from lifting eyes (8).

    d. Put sling (2) on top deck and grilles (9).

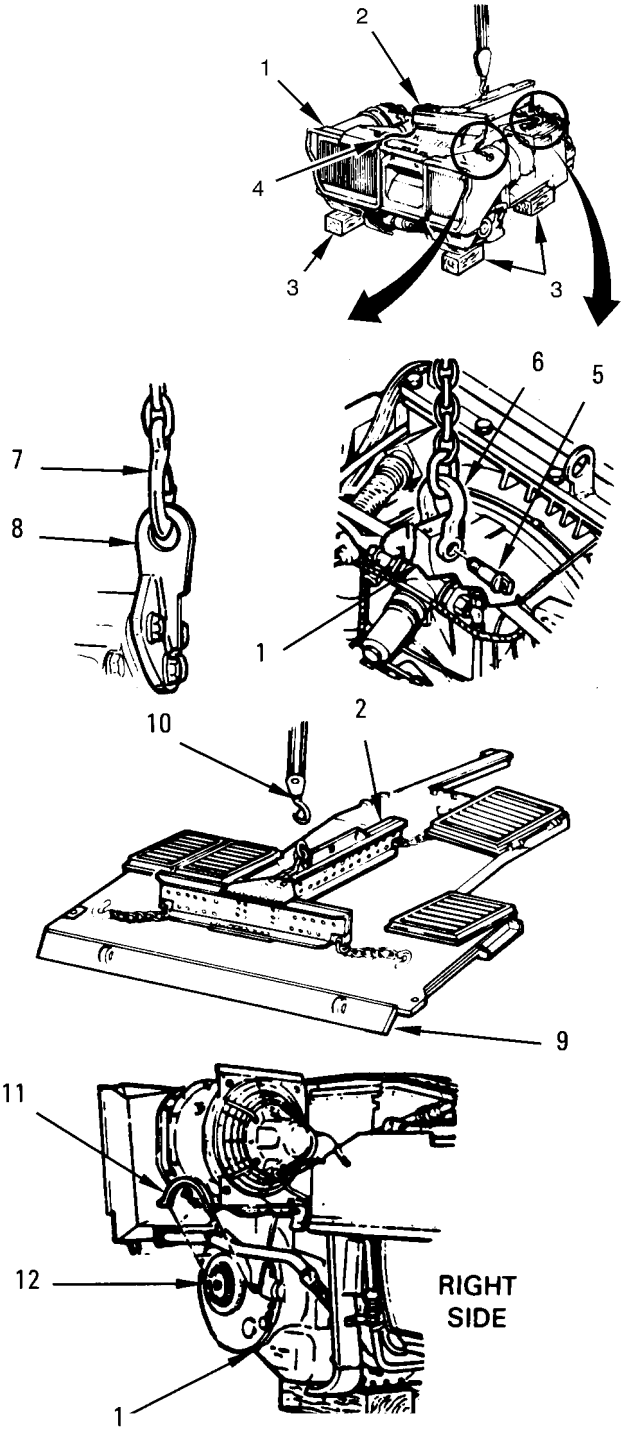
    e. Unhook hoist hook (10) from sling (2).

15. REMOVE AND INSPECT TWO CAPS (11) FOR DAMAGE. REPLACE AS REQUIRED.

    a. Remove right side cap (11) from right side housing (12).

    b. Inspect cap (11) for damage, pits, and scores. Replace as required and put back in place on housing (12).

    c. Repeat steps a and b for left side of powerpack (1).



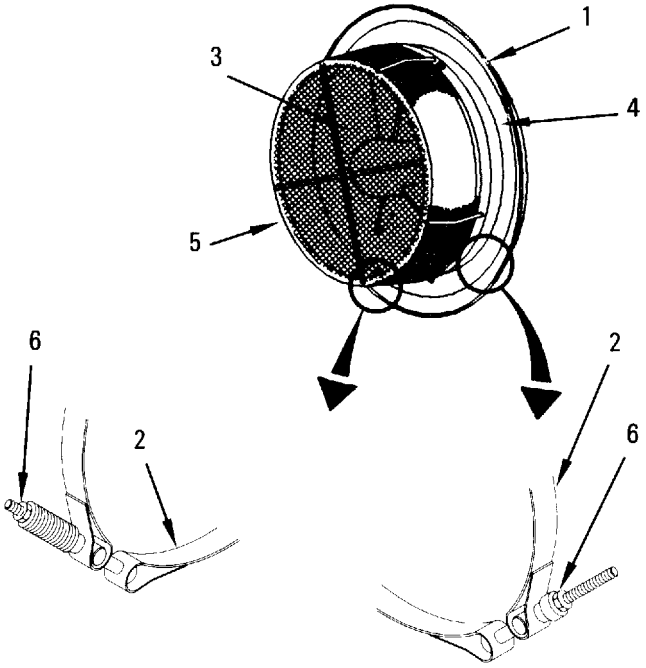
Go on to Sheet 11

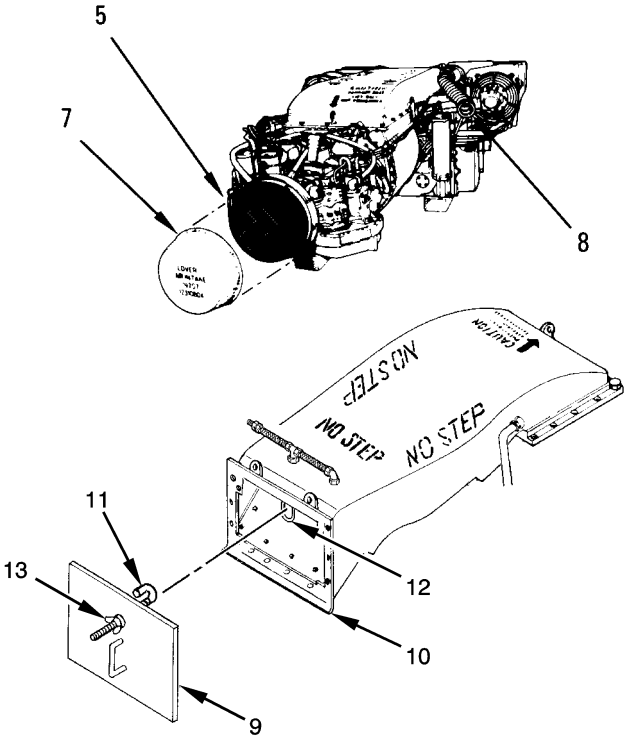
POWERPACK REPLACEMENT (Sheet 11 of 25)

NOTE

Separation of seal parts in bond area is not reason for seal replacement.

16. INSPECT PLENUM-TO-ENGINE PLAIN SEAL (1) FOR DAMAGE OR LOOSE INNER HOSE CLAMP (2). INSPECT SPLITTER ASSEMBLY (3) FOR DAMAGE. REPLACE AS REQUIRED. TORQUE LOOSE CLAMP (2) BETWEEN 60-85 LB-IN (7-9 N•m).
    a. Inspect seal (1) for damage. If damaged, replace plenum-to-engine plain seal (page 4-55).
    b. Pull back seal lip (4) of seal (1) at bottom right side of screen (5) and inspect clamp (2) for damage or looseness. If loose, torque two clamp nuts (6) between 60-85 lb-in (7-9 N•m). If damaged, replace plenum-to-engine plain seal (page 4-55).
    c. Inspect splitter (3) for damage. If damaged, replace splitter assembly (page 5-113).
17. COVER POWERPACK OPENINGS.
    a. Install air intake cover (7) over screen (5).
    b. Cover hose (8) with plastic sheet and tape.
18. INSTALL COVER (9) ON EXHAUST DUCT (10).
    a. Position cover (9) on duct (10).
    b. Connect J-hook (11) to "U" hanger (12) and tighten wing nut (13).





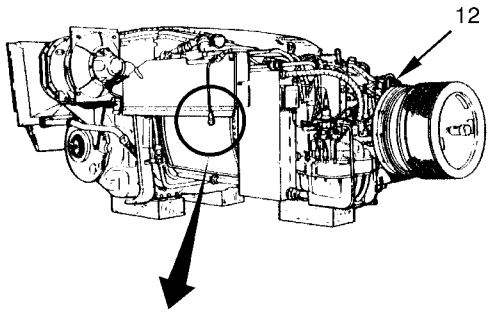
Go on to Sheet 12

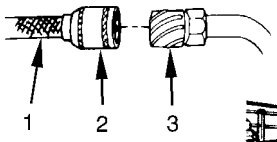
2w2088

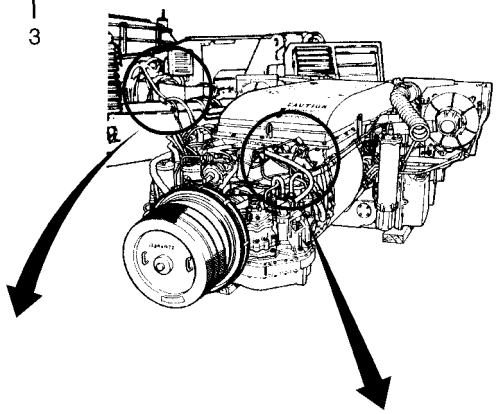
POWERPACK GROUND HOP (Sheet 7 of 15)

WARNING

9. CONNECT GROUND HOP FUEL HOSE ASSEMBLY (1).
   a. Connect quick-disconnect coupling half (2) of hose (1) on powerpack quick-disconnect coupling half (3).
   b. Connect quick-disconnect coupling half (4) of hose (1) on water separator quick-disconnect coupling half (5).

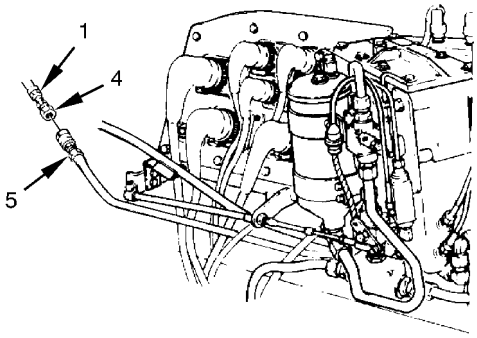


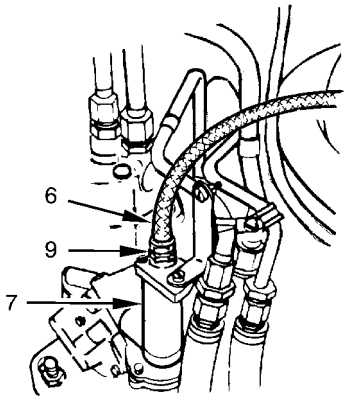


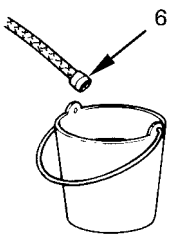


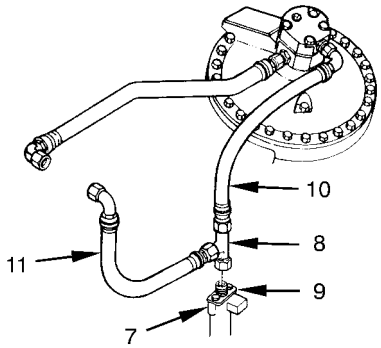
WARNING

10. ATTACH DRAIN HOSE ASSEMBLY (6) TO ELECTRO-MECHANICAL FUEL SYSTEM (7).
    a. Remove tee (8) from adapter (9) on fuel system (7) and move tee (8) and hoses (10, 11) out of the way.
    b. Install hose (6) to adapter (11) on fuel system (7).
    c. Set pail by powerpack (12) and put end of hose (6) in pail.









Go on to Sheet 8

3w5173

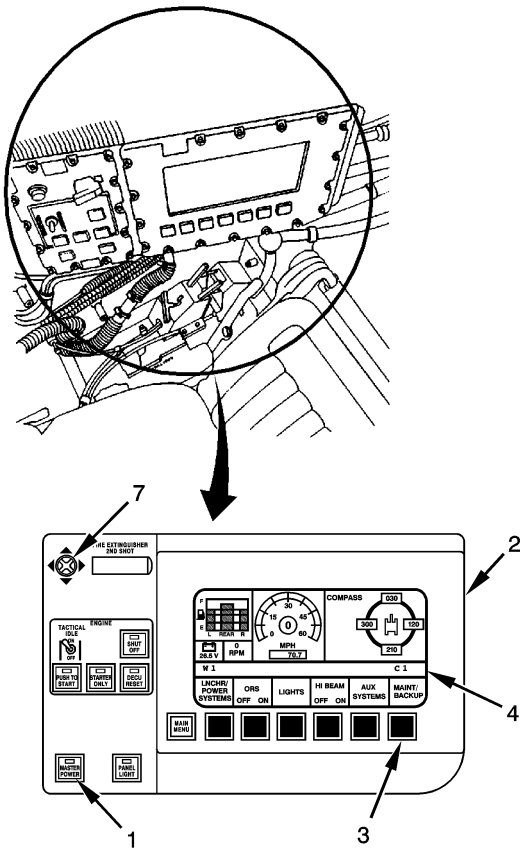
POWERPACK GROUND HOP (Sheet 8 of 15)

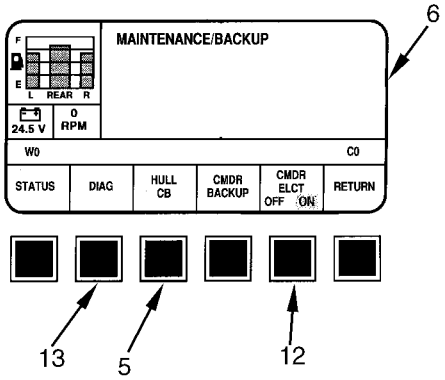
11. CONNECT VEHICLE POWER (PAGE 9-186).
12. PRESS MASTER POWER PUSHBUTTON (1) ON DRIVER'S INTEGRATED DISPLAY (DID) (2) TO ON.
13. PRESS MAINT/BACKUP PUSHBUTTON (3) ON MAIN MENU (4).
14. PRESS HULL CB PUSHBUTTON (5) ON MAINTENANCE/BACKUP MENU (6).
15. USING 4-WAY SWITCH (7) (UP-DOWN), SELECT CIRCUIT BREAKER DECU (8) ON HULL CB MENU (9).

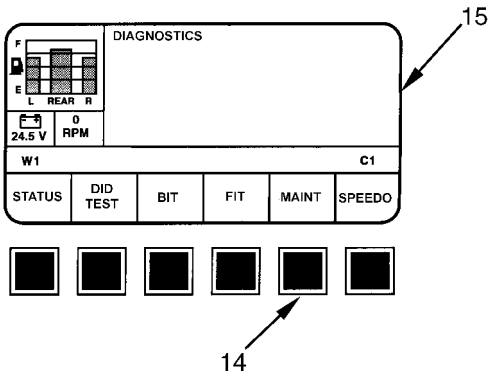
NOTE

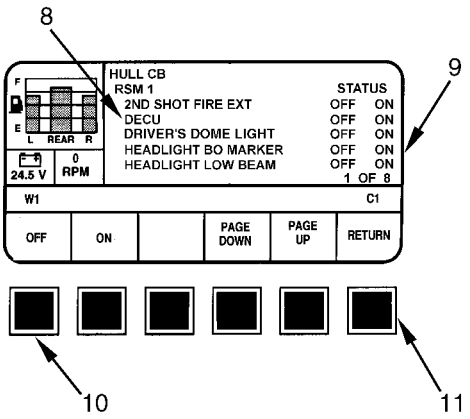
Digital electronic control unit (DECU) must be off for 70 seconds. If DECU is not off for 70 seconds, purging fuel system cannot be performed.

16. PRESS OFF PUSHBUTTON (10) ON HULL CB MENU (9). WAIT 70 SECONDS BEFORE GOING TO STEP 17.
17. PRESS RETURN PUSHBUTTON (11) ON HULL CB MENU (9) ONE TIME TO RETURN TO MAINTENANCE/BACKUP MENU (6).
18. PRESS CMDR ELCT PUSHBUTTON (12) ON MAINTENANCE/BACKUP MENU (6) TO OFF.
19. PRESS DIAG PUSHBUTTON (13) ON MAINTENANCE/BACKUP MENU (6).
20. PRESS MAINT PUSHBUTTON (14) ON DIAGNOSTICS MENU (15).









Go on to Sheet 9

sepw4770

POWERPACK GROUND HOP (Sheet 9 of 15)

21. PRESS FUEL MAINT PUSHBUTTON (1) ON MAINTENANCE MENU (2).

WARNING

NOTE

Vehicle fuel pump may immediately start to pump fuel when PURGE FUEL OFF/ON pushbutton (3) is turned ON.

22. PURGE HOSE (4).

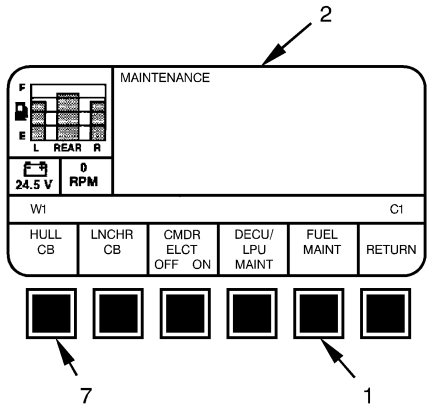
    a. Press PURGE FUEL OFF/ON pushbutton (3) on FUEL MAINTENANCE menu (5) to ON.

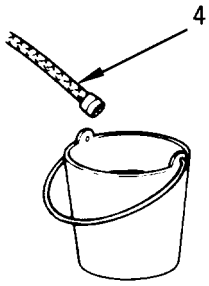
    b. Watch for steady stream of fuel coming from end of hose (4).

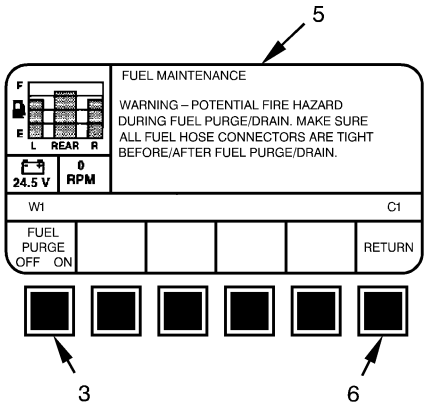
    c. Press PURGE FUEL OFF/ON pushbutton (3) to OFF when stream of fuel from end of hose (4) is steady.

23. PRESS RETURN PUSHBUTTON (6) ON FUEL MAINTENANCE MENU (5) ONE TIME TO RETURN TO MAINTENANCE MENU (2).

24. PRESS HULL CB PUSHBUTTON (7) ON MAINTENANCE MENU (2).







Go on to Sheet 10

habw4771

POWERPACK GROUND HOP (Sheet 10 of 15)

25. USING 4-WAY SWITCH (1) (UP-DOWN), SELECT CIRCUIT BREAKER DECU (2) ON HULL CB MENU (3).

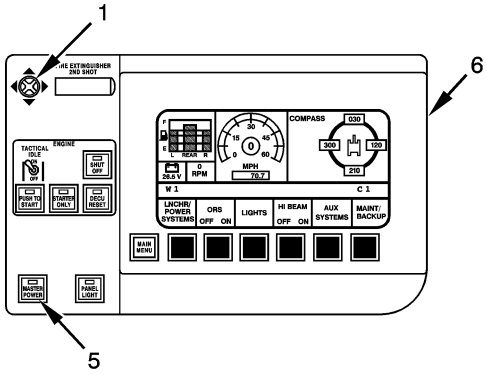
26. PRESS ON PUSHBUTTON (4) ON HULL CB MENU (3).

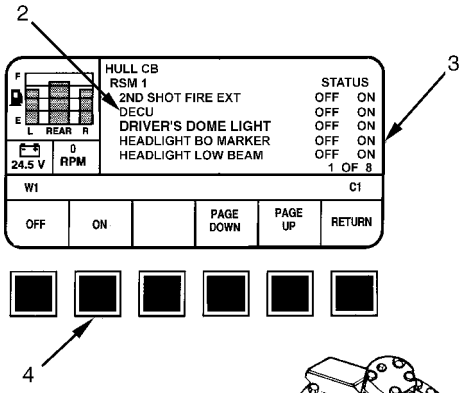
27. PRESS MASTER POWER PUSHBUTTON (5) ON DID (6) TO OFF.

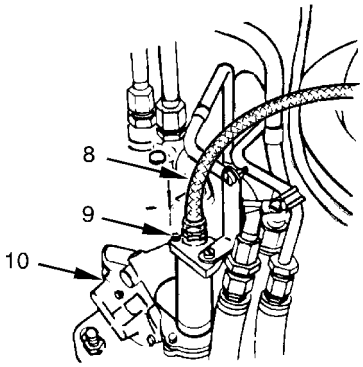
28. CONNECT TEE (7).

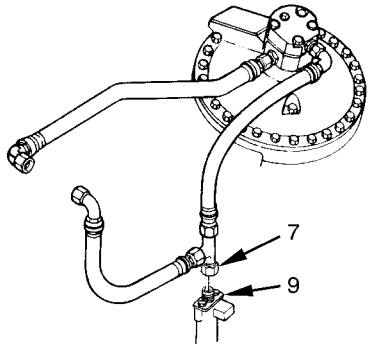
    a. Remove hose (8) from adapter (9) on fuel system (10).

    b. Install tee (7) to adapter (9).









Go on to Sheet 11

sepw4778

POWERPACK GROUND HOP (Sheet 11 of 15)

WARNING

- Do not start powerpack without an observer. Observer must stand where other soldiers can see him.
- Tank driver must not leave driver's compartment while powerpack is running.
- Make sure personnel are clear of powerpack before starting engine.
- Engine exhaust can kill you. Operate powerpack in a well-ventilated area only.

CAUTION

- To avoid damage to engine when it is started, make sure electrical system gage (1) on DID (2) is at 18 volts or higher.
- If engine exhaust duct was removed from engine, heat from engine can set off sprinkling systems in buildings.

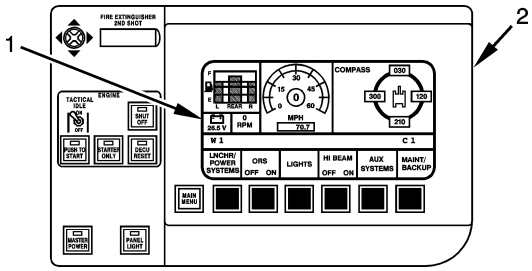
29. START ENGINE.

    a. Start engine and make after-start checks (TM 5-5420-232-10).

NOTE

If directed by Preventive Maintenance Checks and Services (PMCS) or troubleshooting to perform engine health checks, do step b.

    b. Perform engine health checks (page 3-1165).



Go on to Sheet 12

sepw4215

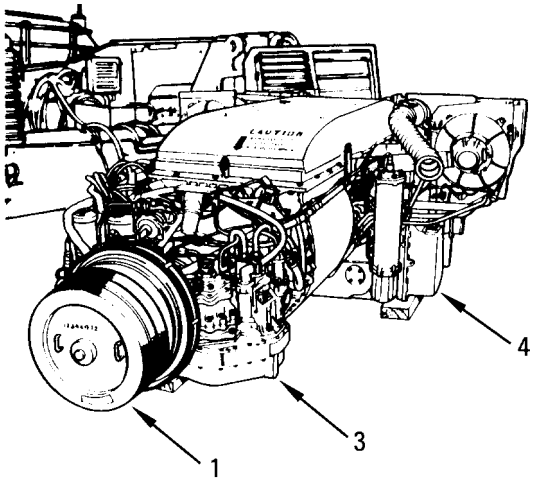
POWERPACK GROUND HOP (Sheet 12 of 15)

30. INSPECT FILTER (1) FOR CORRECT AIRFLOW. CLEAN OR REPLACE AS REQUIRED.

    a. Inspect window (2) on filter (1). If window (2) is green, go to step 31. If window (2) is yellow or red, shut off engine (TM 5-5420-232-10), and clean ground hop pressure fluid filter (page 4-52).

    b. Repeat steps 29a thru 30a. If window (2) is still yellow or red, replace filter (1).

    c. Repeat steps 29b thru 30a.



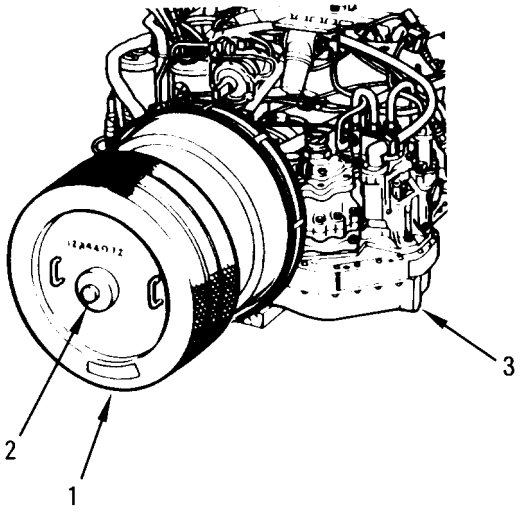
31. RUN ENGINE (3) IN TACTICAL IDLE MODE AND INSPECT POWERPACK (4) FOR LEAKAGE. SHUT DOWN ENGINE (3) AS REQUIRED.

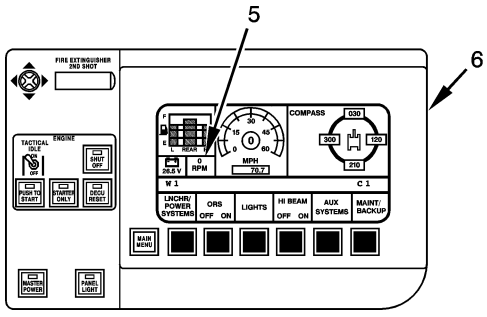
    a. Turn on TACTICAL IDLE (TM 5-5420-232-10). Let engine (3) speed increase and settle near 1200 RPM as shown on RPM gage (5) on DID (6).

    b. Look for oil and fuel leaks several times while engine (3) is running. If leaks are found, shut down engine (TM 5-5420-232-10). If no leaks are found, go to step c.

    c. Let engine (3) speed settle to 845-895 RPM on gage (5), and then shut down engine (TM 5-5420-232-10).

    d. Let engine (3) cool for 20 minutes.





Go on to Sheet 13

3w4216

PLENUM-TO-ENGINE PLAIN SEAL REPLACEMENT (SEAL P/N 12388137) (Sheet 1 of 2)

TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)
Deep style socket, 3/8-inch drive, 7/16-inch (Item 252, Appendix E)
Extension, 3/8-inch drive, 6-inch (Item 77, Appendix E)
Plastic utility pail, 5-quart (Item 157, Appendix E)
Ratchet handle, 3/8-inch drive (Item 109, Appendix E)
Torque wrench, 0-200 in-lb (Item 325, Appendix E)

SUPPLIES: Tap water
Wiping rag (Item 94, Appendix C)

EQUIPMENT CONDITION: Powerpack removed (page 4-12)

REMOVAL:

1. REMOVE AIR INTAKE COVER (1) FROM SCREEN ASSEMBLY (2).
2. REMOVE SEAL (3).
   a. Pull back seal lip (4) at bottom right side of screen (2) at 5 o'clock position and reach in and loosen clamp nut (5).
   b. Pull back seal lip (4) at bottom left side of screen (2) at eight o'clock position and reach in and loosen clamp nut (5).
   c. Pull seal (3) forward and off screen (2).
   d. Pull back lip (4) and find joint on clamp (6) and pull clamp (6) out from inside of seal (3).

NOTE

Separation of seal parts in bond area is not reason for replacement.

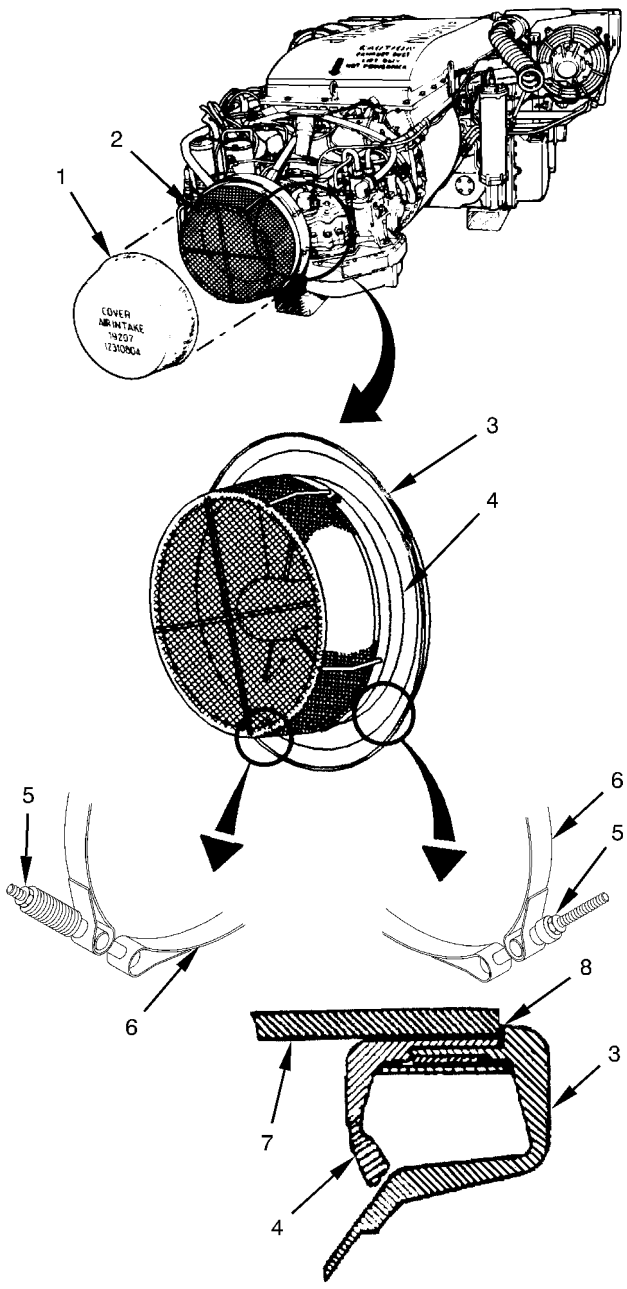
3. INSPECT PARTS FOR DAMAGE. REPLACE AS REQUIRED.

INSTALLATION:

NOTE

Seal (3) is marked TOP.

1. INSTALL SEAL (3). TORQUE TWO NUTS (5) BETWEEN 60-85 LB-IN (7-9 N•m).
   a. Pull back lip (4) of seal (3) and install clamp (6).
   b. Wipe off inside of seal (3) and mounting surface of rim (7) with damp rag.
   c. Slide seal (3), top side up, on rim (7) until seal passes flange (8), and then slide seal forward against flange (8).



Go on to Sheet 2

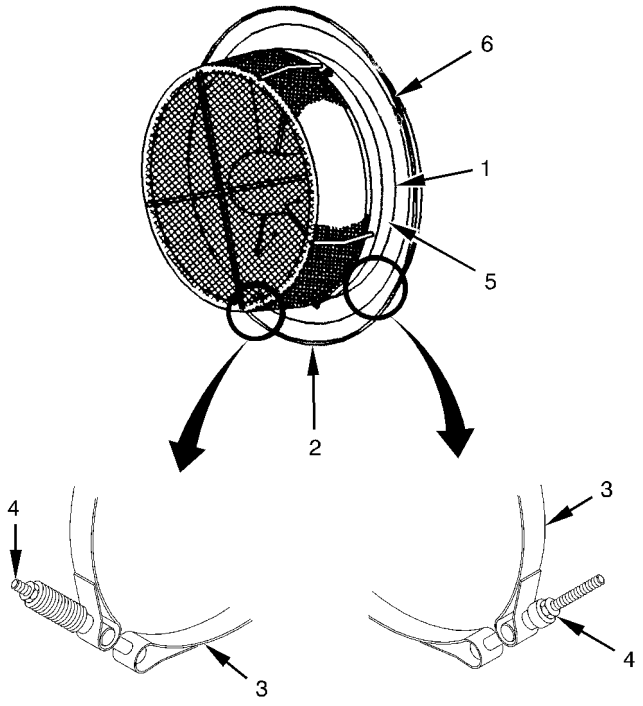
3w5063

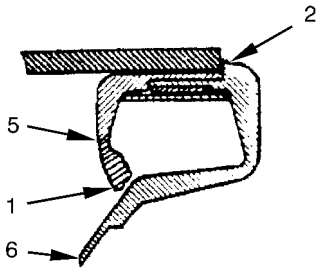
PLENUM-TO-ENGINE PLAIN SEAL REPLACEMENT (SEAL P/N 12388137) (Sheet 2 of 2)

d. Pull back lip (1) of seal (2) and move clamp (3) so that two nuts (4) are at 5 and 8 o'clock positions. Torque nuts (4) alternately until 60-85 lb-in (7-9 N•m) is achieved.

e. Tuck lip (1) of inner seal (5) inside outer seal (6). Yellow line on seal (2) must be visible all the way around.

2. INSTALL POWERPACK (PAGE 4-24).





End of Task

3w5064

PULSE JET SYSTEM (PJS) CLEANING WAND ADAPTER REPLACEMENT (Sheet 1 of 1)

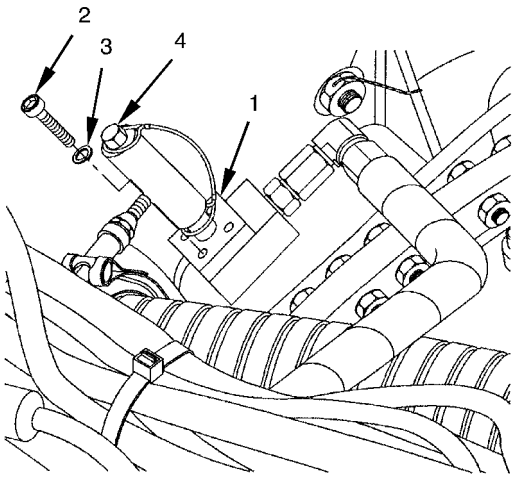
TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)
Extension, 3/8-inch drive, 6-inch (Item 77, Appendix E)
Ratchet handle, 3/8-inch drive (Item 109, Appendix E)
Socket, 3/8-inch drive, 1/2-inch (Item 229, Appendix E)
Socket wrench attachment, 3/8-inch drive, 3/16-inch hex ball (Item 211, Appendix E)
Torque wrench, 3/8-inch drive, 0-200 in-lb (Item 325, Appendix E)

SUPPLIES: Antiseize compound (Item 19, Appendix C)
Lockwasher (Item 117, Appendix G) (4 required)

EQUIPMENT CONDITION: Engine step plate removed (page 4-11)

REMOVAL:

WARNING



1. REMOVE CLEANING WAND ADAPTER (1).

   Remove four screws (2) and lockwashers (3). Remove adapter (1).

2. INSPECT PARTS FOR DAMAGE. REPLACE AS REQUIRED.

INSTALLATION:

1. INSTALL ADAPTER (1) AND TORQUE BETWEEN 80-100 LB-IN (9-11 N•m).

   a. Apply antiseize compound to threads of four screws (2).

   b. Position adapter (1). Install four screws (2) and new lockwashers (3). Torque screws (2) between 80-100 lb-in (9-11 N•m).

   c. Remove cap (4) from adapter (1).

   d. Apply antiseize compound to threads of cap (4) and to threads of adapter (1). Install cap (4).

2. INSTALL ENGINE STEP PLATE (PAGE 4-11).

End of Task

3w4954

PULSE JET SYSTEM (PJS) ENGINE MODULE BASE, ADAPTER AND SWIVEL JOINT REPLACEMENT (Sheet 1 of 1)

TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)

SUPPLIES: Antiseizing tape (Item 118, Appendix C)

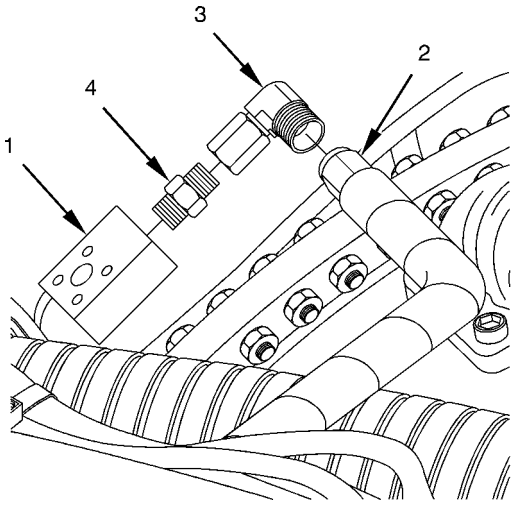
EQUIPMENT CONDITION: Pulse Jet System (PJS) cleaning wand adapter removed (page 4-57)

REMOVAL:

1. REMOVE BASE (1).
   a. Remove bleed air tube assembly (2) and swivel joint (3) from adapter (4).
   b. Remove adapter (4) from base (1).
2. INSPECT PARTS FOR DAMAGE. REPLACE AS REQUIRED.

INSTALLATION:

1. INSTALL BASE (1).
   a. Apply antiseize tape to threads of adapter (4).
   b. Install adapter (4) to base (1).
   c. Install bleed air tube (2) and swivel joint (3) to adapter (4). Do not tighten swivel joint at this time (3).
2. INSTALL PULSE JET SYSTEM (PJS) CLEANING WAND ADAPTER (PAGE 4-57).
   a. Tighten swivel joint (3) to adapter (4).



End of Task 3w4955

PULSE JET SYSTEM (PJS) COUPLER AND ELBOW REPLACEMENT (Sheet 1 of 1)

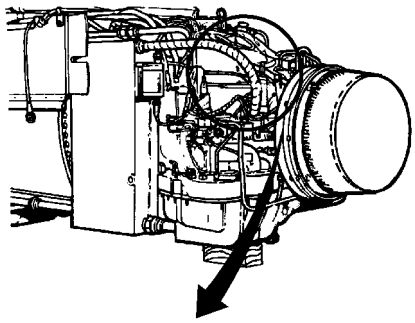
TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)

SUPPLIES: Antiseizing tape (Item 118, Appendix C)

EQUIPMENT CONDITION: Engine access cover removed (TM 5-5420-232-10)

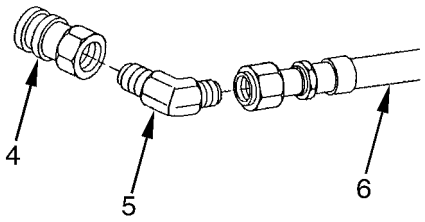
REMOVAL:

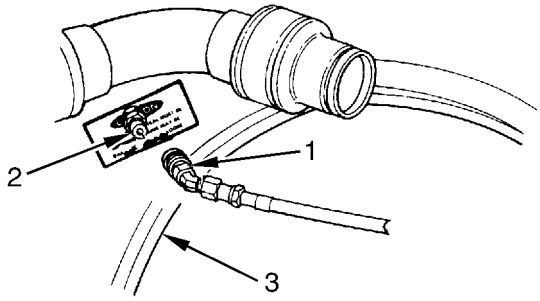
1. DISCONNECT PJS AIR HOSE QUICK-DISCONNECT (1) FROM PJS AIR NIPPLE (2) ON PLENUM (3).
2. REMOVE COUPLER (7) FROM ELBOW (8).
3. REMOVE ELBOW (5) FROM BLEED AIR HOSE ASSEMBLY (6).
4. INSPECT PARTS FOR DAMAGE. REPLACE AS REQUIRED.



INSTALLATION:

1. APPLY ANTISEIZE TAPE TO THREADS OF ELBOW (5).
2. INSTALL ELBOW (5) ON BLEED AIR HOSE ASSEMBLY (6).
3. INSTALL COUPLER (4) ON ELBOW (5).
4. CONNECT PJS AIR HOSE QUICK-DISCONNECT (1) TO AIR NIPPLE (2) ON PLENUM (3). PULL ON AIR HOSE QUICK-DISCONNECT (1) TO MAKE SURE QUICK-DISCONNECT (1) IS SEATED PROPERLY ON NIPPLE (2).
5. INSTALL ENGINE ACCESS COVER (TM 5-5420-232-10).





End of Task

2w6719

PULSE JET SYSTEM (PJS) BLEED AIR TUBE AND HOSE ASSEMBLY REPLACEMENT (Sheet 1 of 1)

TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)

SUPPLIES: Antiseizing tape (Item 118, Appendix C)
Self-locking nut (Item 175, Appendix G) (as required)

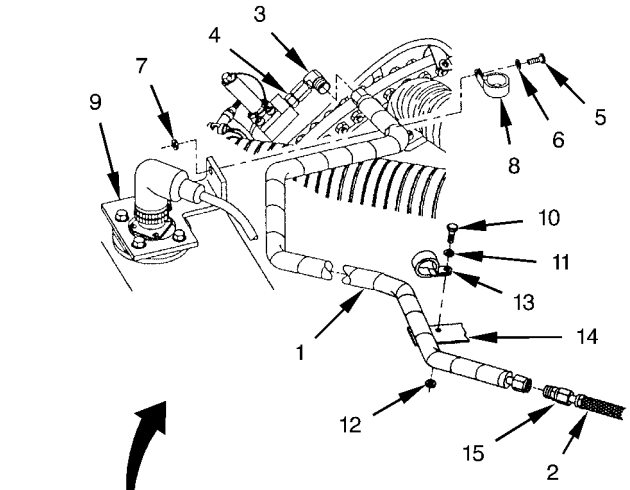
EQUIPMENT CONDITION: Pulse Jet System (PJS) coupler and elbow removed (page 4-59)
Engine step plate removed (page 4-11)

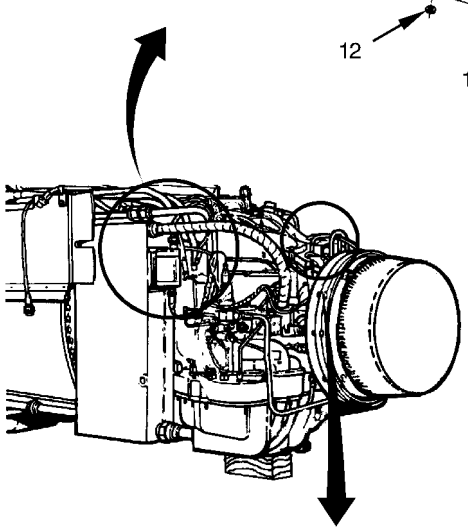
REMOVAL:

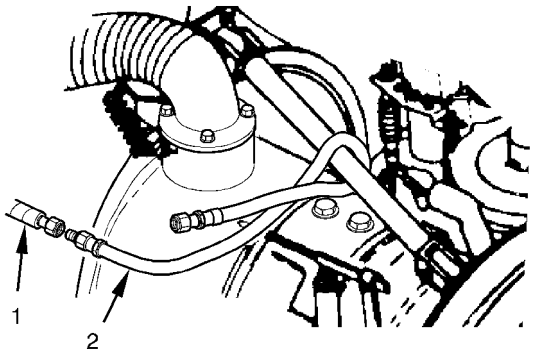
1. REMOVE BLEED AIR TUBE (1) AND HOSE ASSEMBLY (2).
   a. Disconnect swivel elbow (3) at adapter (4).
   b. Remove screw (5), washer (6), self-locking nut (7), and clamp (8) from bracket (9).
   c. Remove screw (10), washer (11), self-locking nut (12), and clamp (13) from bracket (14).
   d. Remove tube (1) and hose (2) from engine.
2. REMOVE SWIVEL ELBOW (3) AND SWIVEL JOINT (15) FROM TUBE (1).
3. REMOVE SWIVEL JOINT (15) FROM HOSE (2).
4. INSPECT PARTS FOR DAMAGE. REPLACE AS REQUIRED.

INSTALLATION:

1. APPLY ANTISEIZE TAPE TO THREADS OF SWIVEL ELBOW (3), ADAPTER (4) AND SWIVEL JOINT (15).
2. INSTALL SWIVEL JOINT (15) ON HOSE (2).
3. INSTALL TUBE (1) TO SWIVEL JOINT (15).
4. INSTALL SWIVEL ELBOW (3) ON TUBE (1).
5. POSITION BLEED AIR TUBE (1) AND HOSE ASSEMBLY (2) ON ENGINE.
   a. Install swivel elbow (3) on adapter (4).
   b. Install screw (5), washer (6), new self-locking nut (7), and clamp (8) on bracket (9).
   c. Install screw (10), washer (11), new self-locking nut (12), and clamp (13) on bracket (14).
6. INSTALL ENGINE STEP PLATE (PAGE 4-11).
7. INSTALL PULSE JET SYSTEM (PJS) COUPLER AND ELBOW (PAGE 4-59).







End of Task 2w6720

INLET GUIDE VANE ACTUATING CYLINDER REPLACEMENT (Sheet 1 of 7)

TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)
Combination wrench, 1-1/16 inch (Item 295, Appendix E)
Extension, 3/8-inch drive, 6-inch (Item 77, Appendix E)
Machinist's vise, 4-inch wide jaws (Item 287, Appendix E)
Ratchet handle, 3/8-inch drive (Item 109, Appendix E)
Socket, 3/8-inch drive, 7/16-inch (Item 234, Appendix E)

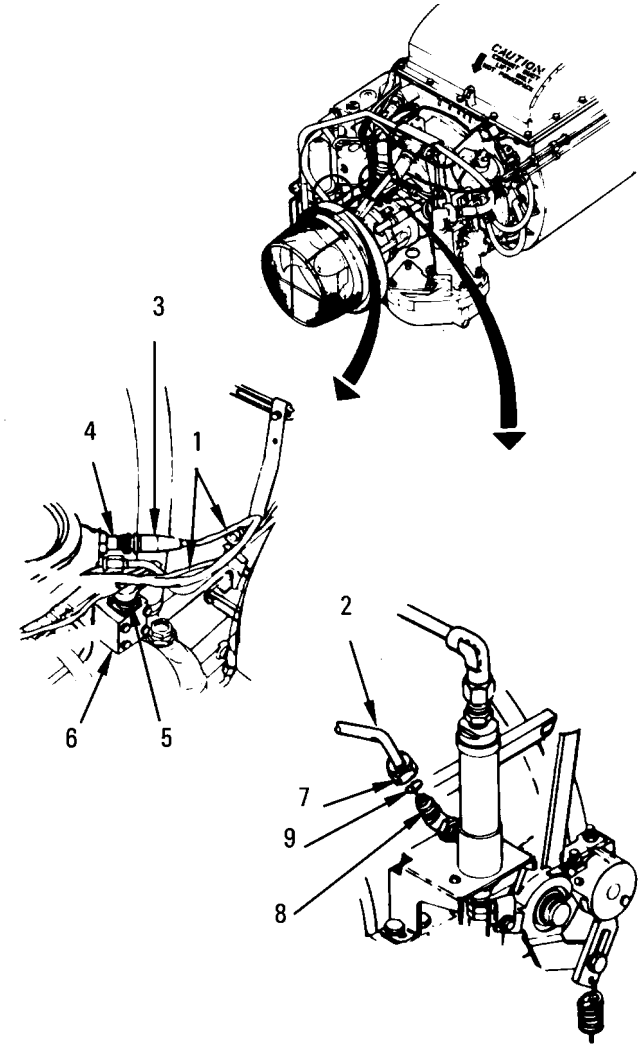
SUPPLIES: Cotter pin (Item 298, Appendix G)
Compression sleeve (Item 562, Appendix G) (2 required)
Keywasher (Item 96, Appendix G)
Keywasher (Item 95, Appendix G)
Lockwasher (Item 122, Appendix G) (2 required)
Self-locking nut (Item 155, Appendix G)

PERSONNEL: Two

EQUIPMENT CONDITION: Powerpack removed (page 4-12)
Engine starter removed (page 9-38)

REMOVAL:

1. DISCONNECT TWO CABLES (1) AND TUBE (2).
   a. Disconnect plug P9 (3) from oil temperature transmitter (4) and plug P7 (5) from bypass filter pressure switch (6).
   b. Disconnect tube nut (7) from elbow (8) and remove compression sleeve (9) from nut (7).



Go on to Sheet 2

2w1426

INLET GUIDE VANE ACTUATING CYLINDER REPLACEMENT (Sheet 2 of 7)

2. REMOVE INLET GUIDE VANE SHOULDERED SHAFT (1) AND BRACKET (2).

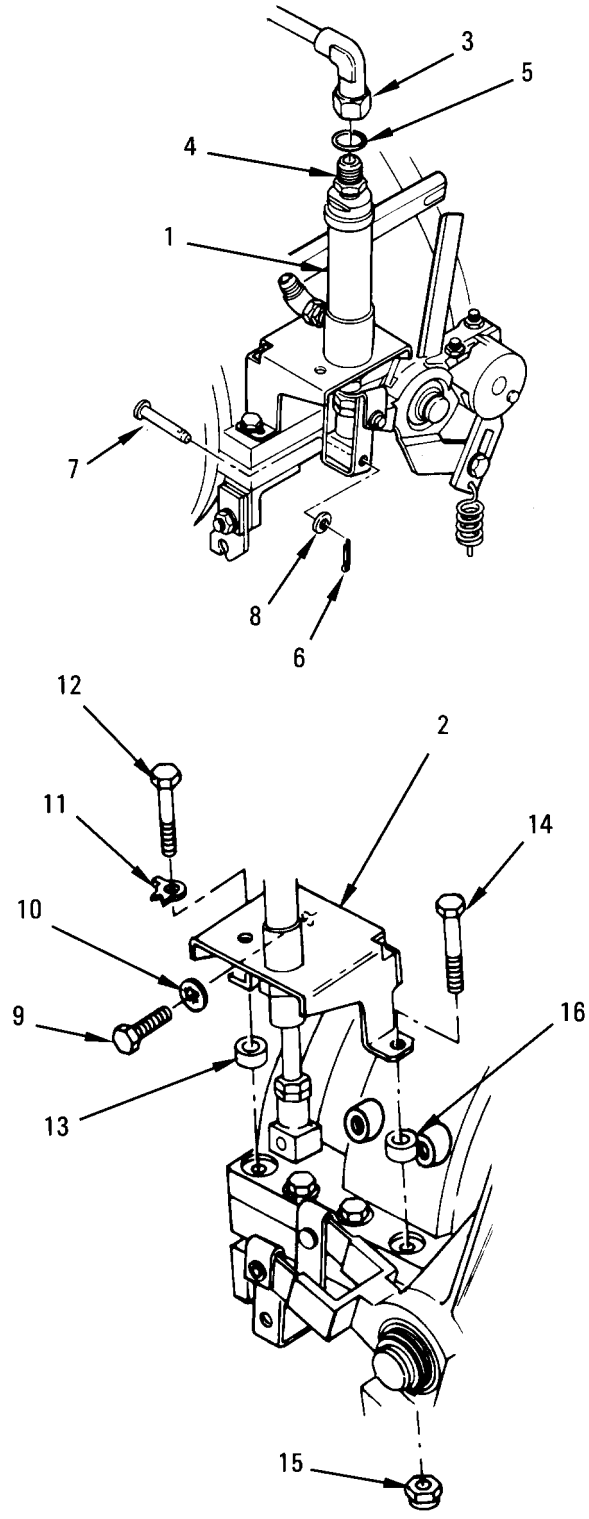
   a. Disconnect tube nut (3) from adapter (4). Remove compression sleeve (5) from tube nut (3).

   b. Remove cotter pin (6) from straight pin (7). Remove washer (8) and pull out pin (7).

   c. Remove two bolts (9) and lockwashers (10) from bracket (2).

   d. Bend tabs of keywasher (11) away from bolt (12) and remove bolt (12), keywasher (11), and spacer (13) from bracket (2).

   e. Remove bolt (14), self-locking nut (15), and spacer (16) from bracket (2).

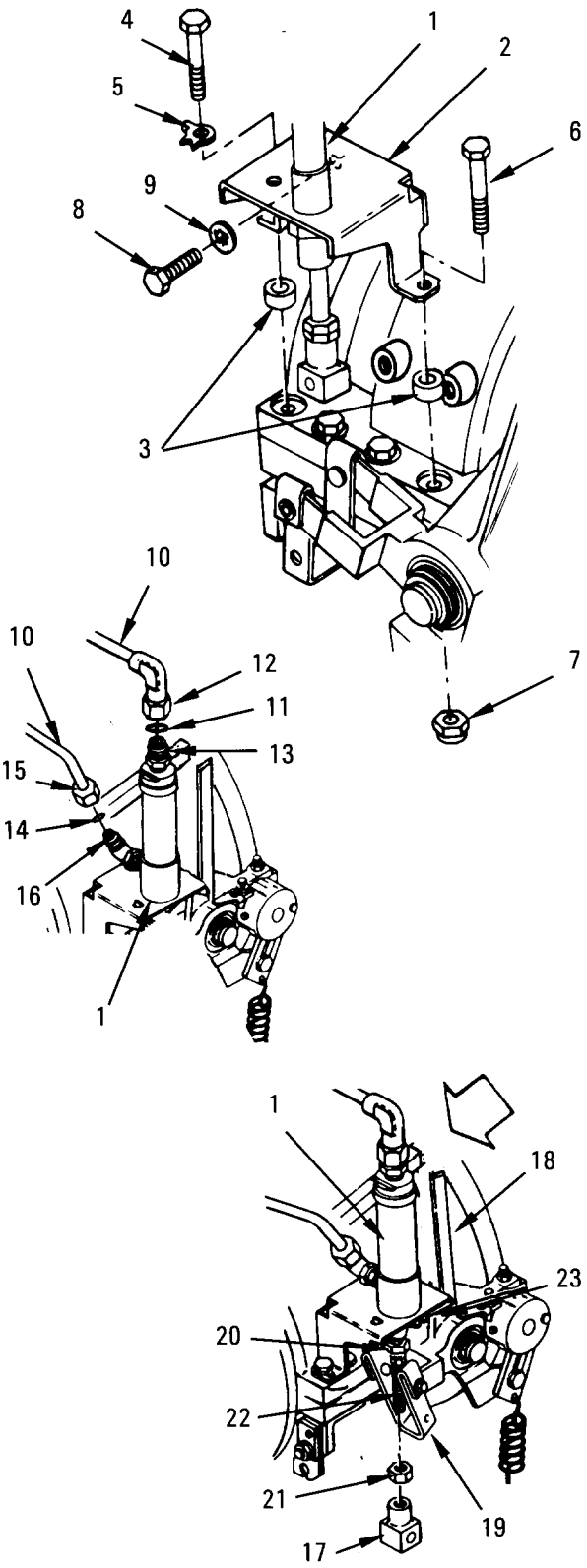


Go on to Sheet 3

2w1427

INLET GUIDE VANE ACTUATING CYLINDER REPLACEMENT (Sheet 5 of 7)

3. INSTALL SHAFT (1) AND BRACKET (2) TO ENGINE.
   a. Put bracket (2), shaft (1), and two spacers (3) in place on engine.
   b. Loosely install bolt (4), new keywasher (5), bolt (6), and new nut (7) in bracket (2).
   c. Install two bolts (8) and new lockwashers (9) in bracket (2).
   d. Tighten bolts (4, 6) in bracket (2) and bend tabs on keywasher (5) up against bolt (4).
4. CONNECT TWO TUBES (10).
   a. Put new sleeve (11) in nut (12) and loosely connect nut (12) to adapter (13).
   b. Put new sleeve (14) in nut (15) and connect nut (15) to elbow (16).
   c. Tighten nut (12) to adapter (13).
5. INSTALL CONNECTOR (17).
   a. Push lever (18) all the way to the rear in direction of arrow. Push link (19) forward as shown by arrow.
   b. Hold top of shaft (1) and tighten nut (20).
   c. Screw nut (21) and connector (17) on stud (22). Tighten nut (21) against connector (17).
   d. Bend two tabs (23) flat against nut (20).



Go on to Sheet 6

2w1430

INLET GUIDE VANE ACTUATING CYLINDER REPLACEMENT (Sheet 6 of 7)

6. ADJUST SHAFT (1) TO ALINE OPEN MARK (2) AND INDICATOR (3).

   a. Pull lever (4) all the way forward and hold in place. Loosen self-locking nut (5). Turn screw (6) clockwise or counterclockwise until CLOSED mark (7) on bellcrank (8) and indicator (3) on vane stop plate (9) aline. Hold screw (6) and tighten nut (5).

   b. Put pin (10) through link (11) and connector (12).

   c. Push lever (4) all the way to the rear and hold in place. Look at OPEN mark (2) on bellcrank (8) and indicator (3) on vane stop plate (9). If OPEN mark (2) and indicator (3) aline, do step d.

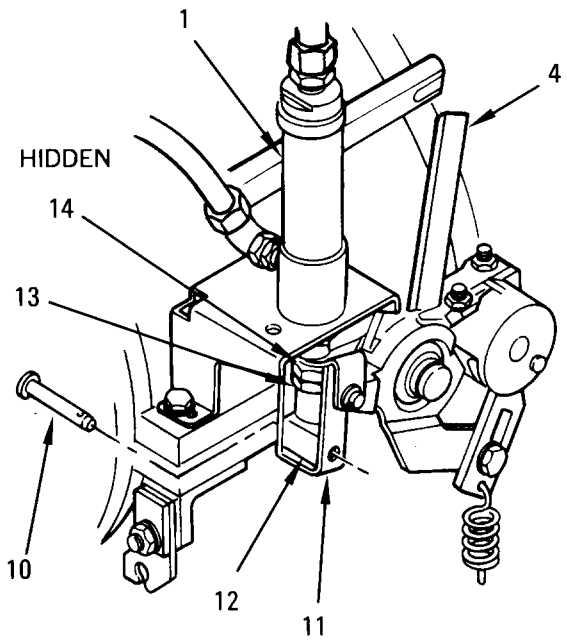
   d. Pull pin (10) out of link (11) and connector (12). Push link (11) all the way forward. Push down on connector (12) all the way.

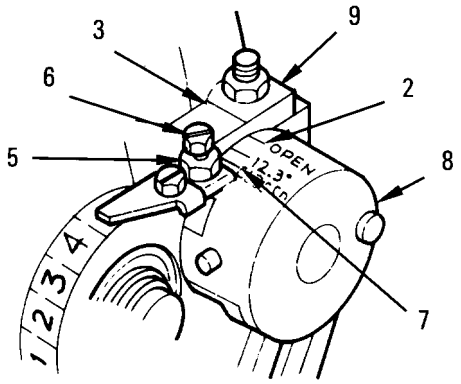
NOTE

- If OPEN mark (2) on bellcrank (8) is in front of indicator (3), turn nut (13) and connector (12) clockwise.

- If OPEN mark (2) on bellcrank (8) is in back of indicator (3), turn nut (13) and connector (12) counterclockwise.

   e. Screw nut (13) and connector (12) on rod (14) one turn at a time. Repeat steps b and c until OPEN mark (2) and indicator (3) line up.





Go on to Sheet 7

2w1431

POWER TURBINE STATOR CYLINDER ASSEMBLY REPLACEMENT (Sheet 4 of 6)

3. POSITION CONNECTOR (1) ON BRACKET (2) AND INSTALL PIN (3) AND NEW COTTER PIN (4).

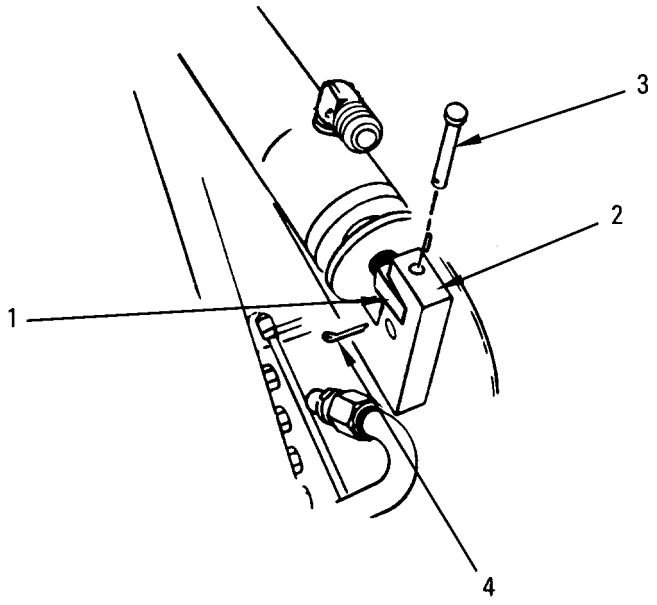
NOTE

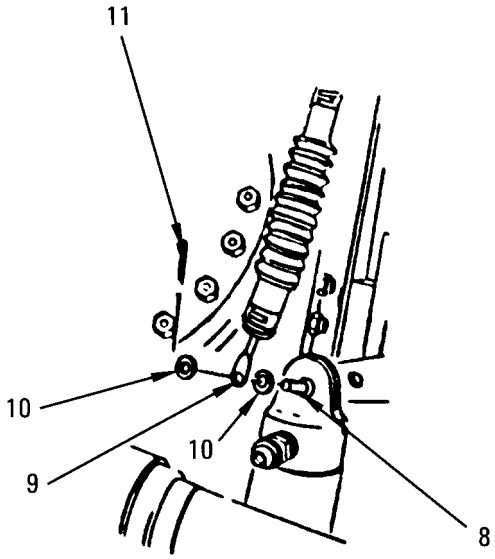
Steps 4, 5, and 6 are needed only if connector (1) and plate lengths (lengths A and B in removal step 4) are unknown. If steps 2 and 3 above were completed, go to step 7.

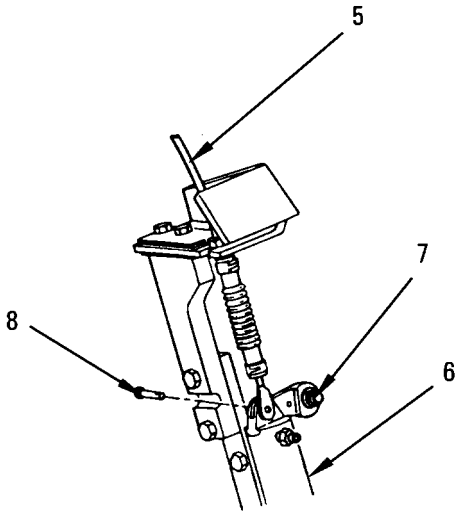
4. CONNECT CONTROL (5).

   a. Position cylinder (6) on lever (7) and install pin (8).

   b. Put control assembly end (9) and two washers (10) on pin (8). Put new cotter pin (11) in pin (8).







Go on to Sheet 5

2w5046

POWER TURBINE STATOR CYLINDER ASSEMBLY REPLACEMENT (Sheet 5 of 6)

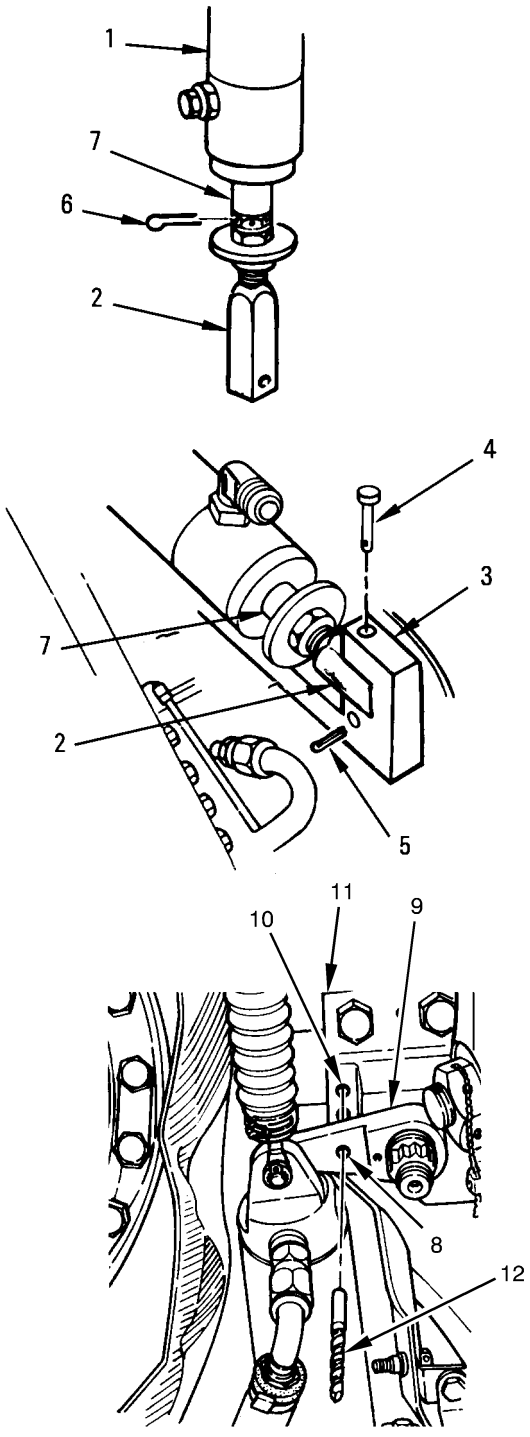
5. INSTALL AND ADJUST CYLINDER (1) AND CONNECTOR (2) TO ALINE HOLES IN CONNECTOR (2) AND BRACKET (3). INSTALL PIN (4) AND NEW COTTER PINS (5, 6).

   a. Screw connector (2) in piston (7). Pull on connector (2) until piston (7) is out all the way.

   b. Aline hole (8) in lever (9) with upper hole (10) in block (11). Put shank of twist drill (12) in holes (8, 10) to hold lever (9) in place.

   c. Turn connector (2) clockwise or counterclockwise until holes in connector (2) aline with holes in bracket (3). Install pin (4) in bracket (3) and connector (2). Install new cotter pin (5) in pin (4).

   d. Aline hole in connector (2) with nearest hole in piston (7). Install new cotter pin (6) in piston (7). Remove drill (12).



Go on to Sheet 6

2w5111

TUBE ASSEMBLY (ELECTRO-MECHANICAL FUEL SYSTEM TO TOP OF INLET GUIDE VANE ACTUATING CYLINDER) REPLACEMENT (Sheet 1 of 1)

TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)

SUPPLIES: Flared conical seal (Item 399, Appendix G)
Compression sleeve (Item 562, Appendix G)
Electrical tiedown strap (Item 451, Appendix G) (2 required)
Self-locking nut (Item 179, Appendix G)

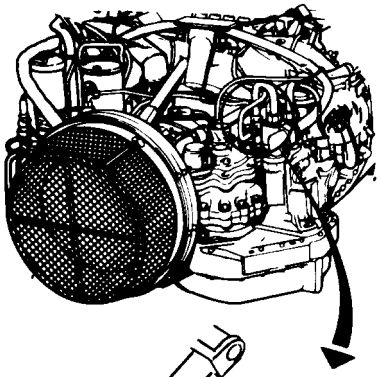
EQUIPMENT CONDITION: Rear arm opened (page 17-188)
Engine access cover removed (TM 5-5420-232-10)

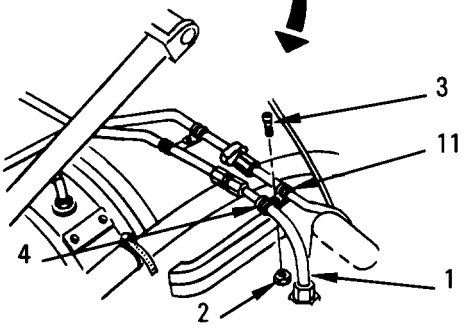
REMOVAL:

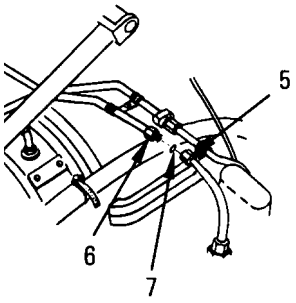
1. REMOVE TUBE (1).
   a. Remove self-locking nut (2) and screw (3) from loop clamp (4). Remove clamp (4) from tube (1).
   b. Disconnect tube nut (5) from adapter (6). Remove compression sleeve (7).
   c. Disconnect tube nut (8) from adapter (9). Remove flared conical seal (10).
2. INSPECT PARTS FOR DAMAGE. REPLACE AS REQUIRED.

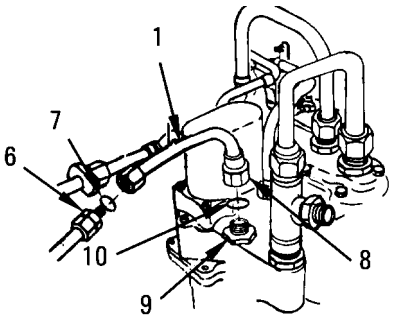
INSTALLATION:

1. INSTALL TUBE (1).
   a. Put new sleeve and new seal (7), (10) in nuts (5, 8) of tube (1).
   b. Put tube (1) in place. Connect nut (5) to adapter (6) and nut (8) to adapter (9).
   c. Put clamp (4) on tube (1) across from clamp (11). Install screw (3) and new nut (2) in clamps (4, 11).
2. INSTALL ENGINE ACCESS COVER (TM 5-5420-232-10).
3. CLOSE REAR ARM (PAGE 17-189).









End of Task

2w1449

TUBE ASSEMBLY (TOP OF INLET GUIDE VANE ACTUATING CYLINDER) REPLACEMENT (Sheet 1 of 2)

TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)

SUPPLIES: Compression sleeve (Item 562, Appendix G) (2 required)
Electrical tiedown strap (Item 451, Appendix G)
Self-locking nut (Item 179, Appendix G)

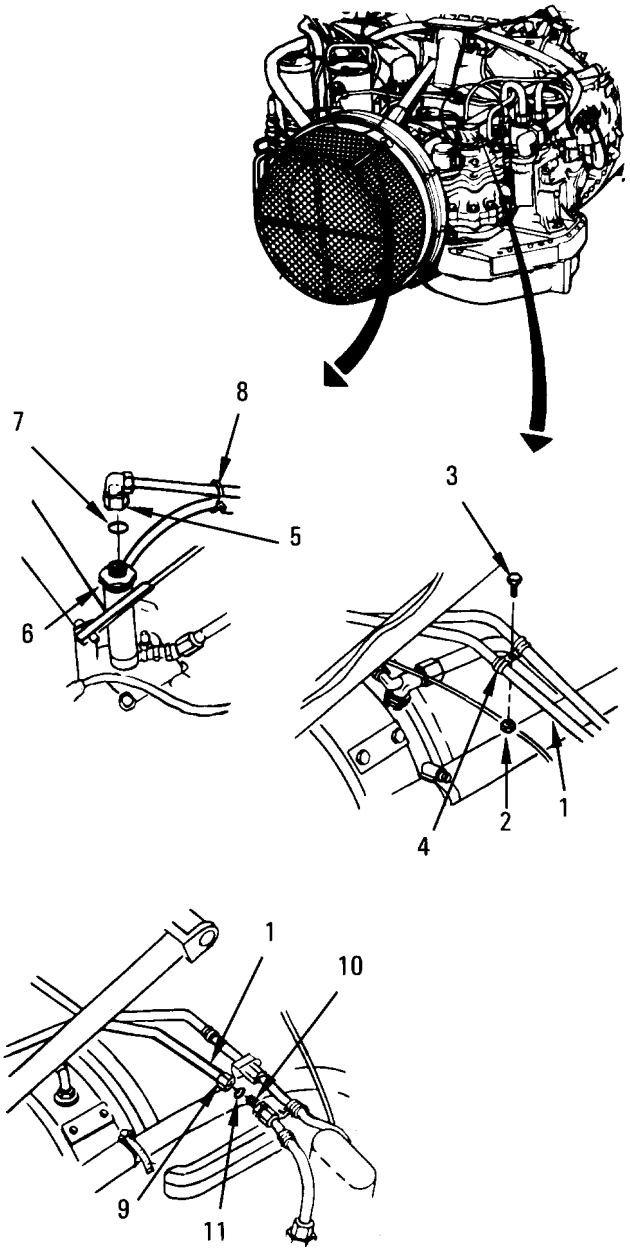
EQUIPMENT CONDITION: Rear arm opened (page 17-188)
Engine access cover removed (TM 5-5420-232-10)

REMOVAL:

1. REMOVE TUBE (1).
   a. Remove self-locking nut (2) and clamp screw (3) from loop clamp (4). Remove clamp (4) from tube (1).
   b. Disconnect tube nut (5) from adapter (6). Remove compression sleeve (7).
   c. Cut off tiedown strap (8).
   d. Disconnect tube nut (9) from tube nipple (10). Remove compression sleeve (11).
2. INSPECT PARTS FOR DAMAGE. REPLACE AS REQUIRED.

INSTALLATION:

1. INSTALL TUBE (1).
   a. Put new sleeves (7, 11) in nuts (5, 9) of tube (1).
   b. Put tube (1) in place. Loosely connect nut (9) to nipple (10). Connect nut (5) to adapter (6) and tighten nut (9).



Go on to Sheet 2

2w1450

TUBE ASSEMBLY (ELECTRO-MECHANICAL FUEL SYSTEM TO TOP OF POWER TURBINE STATOR CYLINDER ASSEMBLY) REPLACEMENT (Sheet 1 of 1)

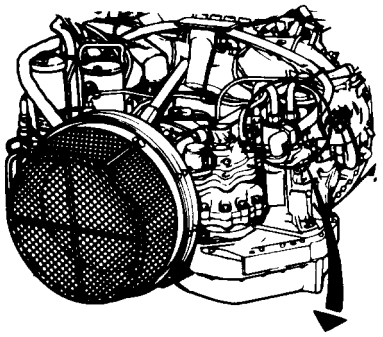
TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)

SUPPLIES: Flared conical seal (Item 399, Appendix G) (2 required)
Self-locking nut (Item 179, Appendix G)

EQUIPMENT CONDITION: Rear arm opened (page 17-188)
Engine access cover removed (TM 5-5420-232-10)

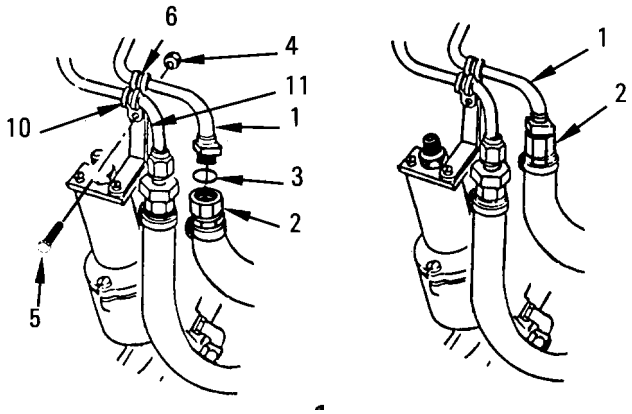
REMOVAL:

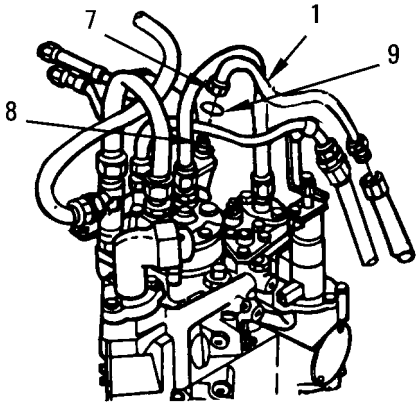
1. REMOVE TUBE (1).
   a. Disconnect hose nut (2) from tube (1). Remove flared conical seal (3).
   b. Remove self-locking nut (4) and screw (5) from loop clamp (6). Remove clamp (6) from tube (1).
   c. Disconnect tube nut (7) from adapter (8). Remove flared conical seal (9).
2. INSPECT PARTS FOR DAMAGE. REPLACE AS REQUIRED.



INSTALLATION:

1. INSTALL TUBE (1).
   a. Put new seals (3, 9) in nut (2) and nut (7) of tube (1).
   b. Put tube (1) in place. Screw on nut (7) to adapter (8) and nut (2) to tube (1).
   c. Put clamp (6) on tube (1) across from clamp (10). Aline holes in clamps (6, 10) and bracket (11) and put in screw (5). Install new nut (4) on screw (5).
   d. Tighten nut (7) to adapter (8). Tighten nut (2) to tube (1).
2. INSTALL ENGINE ACCESS COVER (TM 5-5420-232-10).
3. CLOSE REAR ARM (PAGE 17-189).





End of Task 2w1453

VALVE AND TUBE ASSEMBLY REPLACEMENT (Sheet 1 of 3)

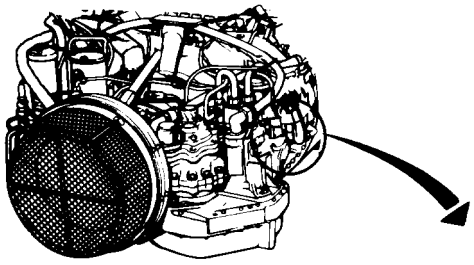
TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)
Combination wrench, 1-1/8 inch (Item 298, Appendix E)

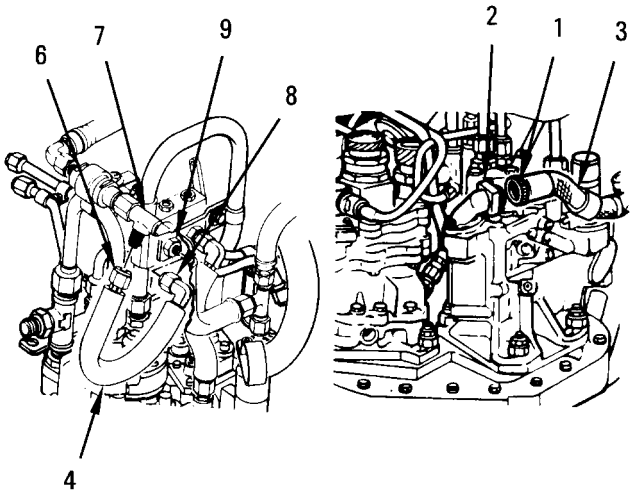
SUPPLIES: Cotter pin (Item 304, Appendix G)
Flared conical seal (Item 548, Appendix G) (2 required)
Self-locking nut (Item 179, Appendix G)

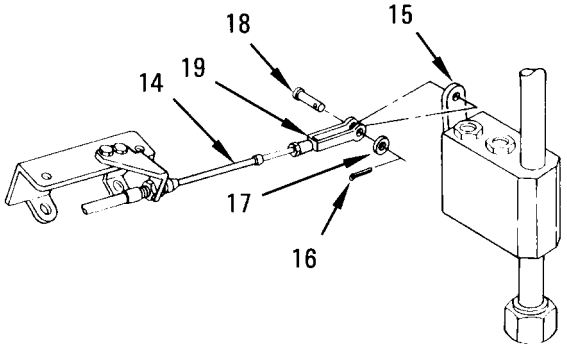
EQUIPMENT CONDITION: Powerpack removed (page 4-12)

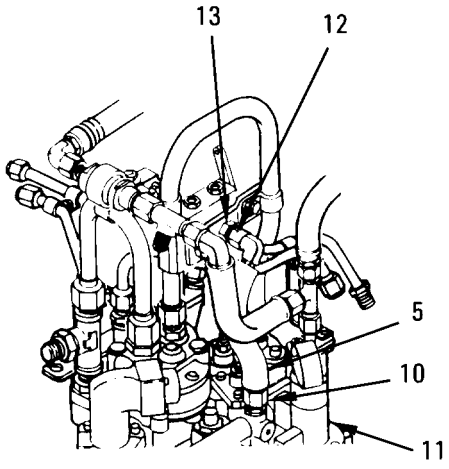
REMOVAL:

1. DISCONNECT CONNECTOR PLUG P33 (1) FROM CONNECTOR (2), AND MOVE CABLE (3) OUT OF THE WAY.
2. REMOVE HOSE ASSEMBLIES (4, 5).
   a. Disconnect hose nut (6) from tee (7).
   b. Disconnect hose nut (8) from valve and tube assembly union (9).
   c. Disconnect hose nut (10) from fuel control (11).
   d. Disconnect hose nut (12) from valve and tube assembly filter (13).
3. REMOVE BATTLE OVERRIDE ENGINE FUEL CABLE (14) FROM LEVER (15).
   a. Remove cotter pin (16) and washer (17) from headed straight pin (18).
   b. Remove pin (18) and clevis (19) from lever (15).









Go on to Sheet 2

2w4901

TUBE ASSEMBLY (IN-LINE PRESSURE FLUID FILTER TO ELECTRO-MECHANICAL FUEL SYSTEM) REPLACEMENT (Sheet 2 of 2)

2. CLOSE TOP DECK RIGHT GRILLE DOORS (TM 5-5420-232-10).
3. CLOSE BOTH PRECLEANER DOORS (TM 5-5420-232-10).
4. CLOSE BOTH BATTERY COVERS (TM 5-5420-232-10).
5. INSTALL ENGINE ACCESS COVER (TM 5-5420-232-10).
6. CLOSE REAR ARM (PAGE 17-189).

End of Task

FLUID FILTER ELEMENT REPLACEMENT (Sheet 1 of 3)

TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)
Liquid measure, 1-quart capacity (Item 138, Appendix E)

SUPPLIES: Fluid pressure filter parts kit (Item 422, Appendix G)
Nonelectric wire (Item 132, Appendix C)
Wiping rag (Item 94, Appendix C)

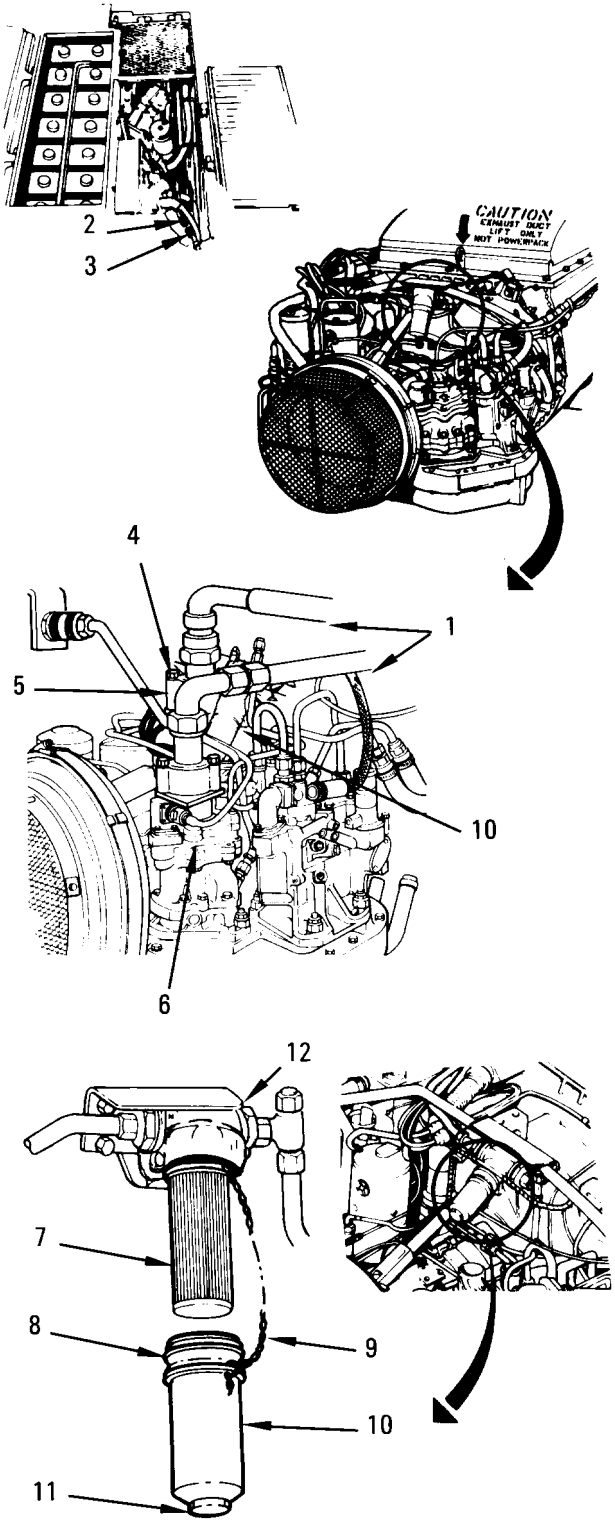
EQUIPMENT CONDITION: Rear arm opened (page 17-188)
Engine access cover removed (TM 5-5420-232-10)
Top deck right grille doors opened (TM 5-5420-232-10)
Both battery covers opened (TM 5-5420-232-10)

Go on to Sheet 2

FLUID FILTER ELEMENT REPLACEMENT (Sheet 2 of 3)

REMOVAL:

1. DISCONNECT TWO HOSES (1).
   a. Pull back on collar of quick-disconnect coupling (2) and turn counterclockwise. Take coupling (2) off quick-disconnect nipple (3).
   b. Loosen two screws (4) from quick-disconnect coupling (5). Pull back on collar of coupling (5) and turn counterclockwise.
   c. Pull off coupling (5) from main pump (6).
2. REMOVE ELEMENT (7) AND O-RING (8) .
   a. Remove safety wire (9) from filter element housing (10).
   b. Loosen housing (10) by turning housing nut (11).
   c. Remove housing (10) and pour fuel from housing (10) in measure.
   d. Remove element (7) from filter assembly (12).
   e. Remove O-ring (8) from housing (10) and wipe out housing (10) with clean, dry rag.
3. INSPECT PARTS FOR DAMAGE. REPLACE AS REQUIRED.



Go on to Sheet 3

2w1459

FLUID FILTER ELEMENT REPLACEMENT (Sheet 3 of 3)

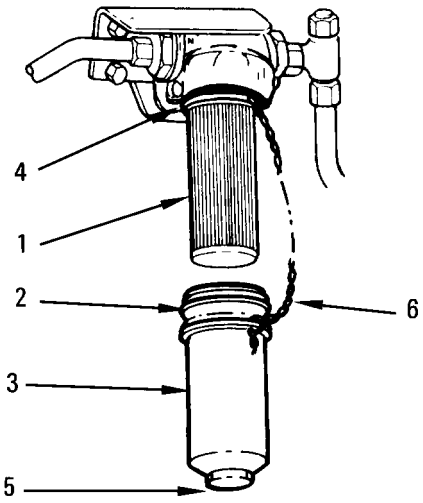
INSTALLATION:

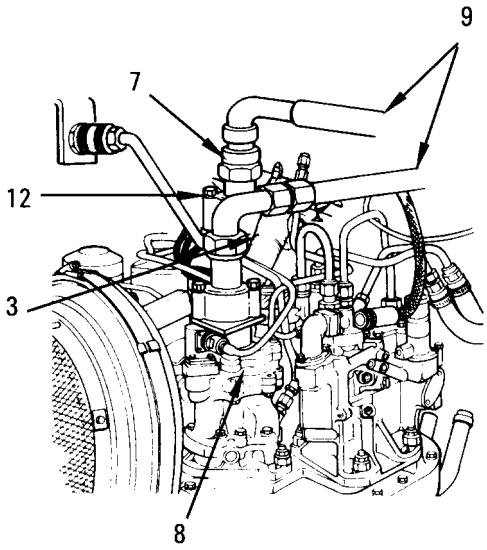
1. INSTALL NEW ELEMENT (1), NEW O-RING (2) , AND HOUSING (3).
   a. Put element (1) in filter (4).
   b. Put O-ring (2) on housing (3). Install housing (3) in filter (4).
   c. Tighten housing (3) by turning nut (5).
   d. Install new wire (6) on housing (3).

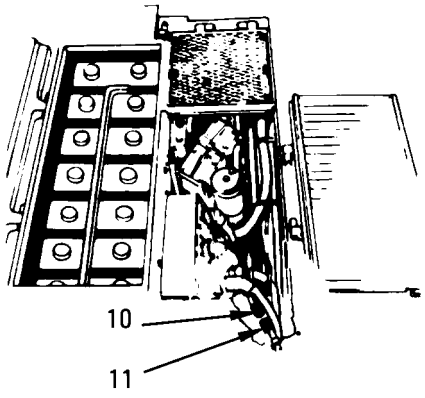
CAUTION

Make sure coupling (7) is installed correctly. A bad connection could cause pump (8) to run dry and be damaged.

2. CONNECT TWO HOSES (9).
   a. Push coupling (10) on nipple (11) and turn clockwise to lock.
   b. Put coupling (7) on pump (8). Aline and install two screws (12).
3. CLOSE TOP DECK RIGHT GRILLE DOORS (TM 5-5420-232-10).
4. CLOSE BOTH BATTERY COVERS (TM 5-5420-232-10).
5. INSTALL ENGINE ACCESS COVER (TM 5-5420-232-10).
6. CLOSE REAR ARM (PAGE 17-189).







End of Task

2w1460

PRESSURE FLUID FILTER REPLACEMENT (Sheet 1 of 3)

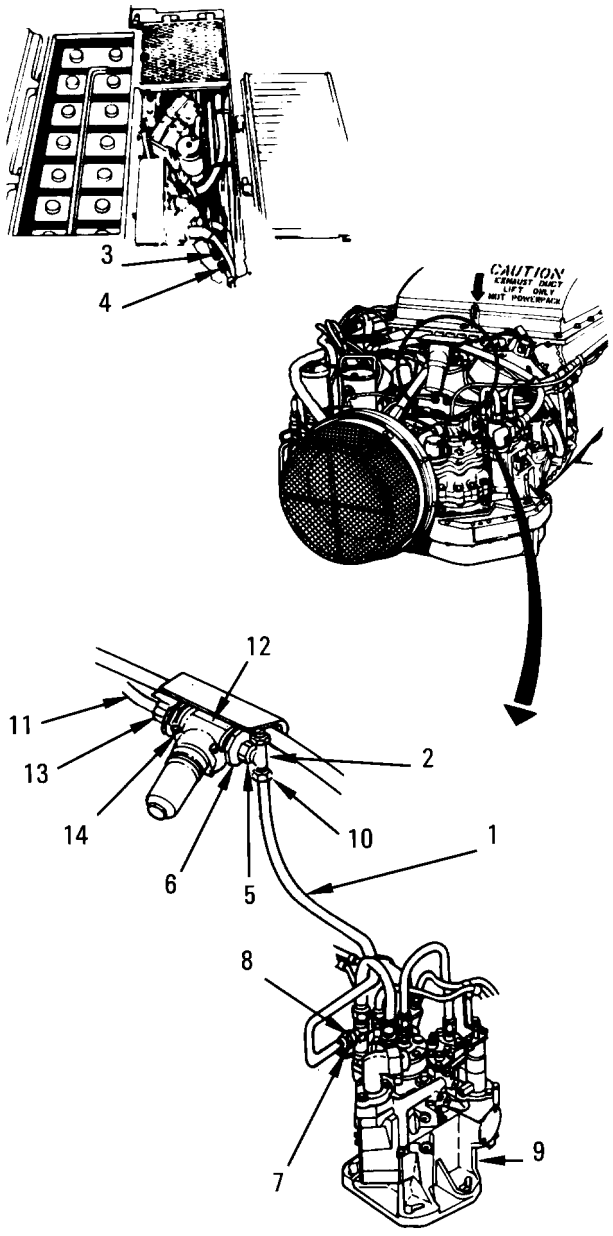
TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)
Combination wrench, 1-3/8 inch (Item 299, Appendix E)

SUPPLIES: Preformed packing (Item 232, Appendix G) (2 required)

EQUIPMENT CONDITION: Rear arm opened (page 17-188)
Engine access cover removed (TM 5-5420-232-10)
Both battery covers opened (TM 5-5420-232-10)
Top deck right grille doors opened (TM 5-5420-232-10)

REMOVAL:

1. REMOVE TUBE ASSEMBLY (1) AND TEE (2).
   a. Pull back on collar of quick-disconnect coupling (3) and turn counterclockwise. Take coupling (3) off quick-disconnect nipple (4).
   b. Disconnect tee nut (5) from tube reducer (6).
   c. Disconnect tube nut (7) from adapter (8) on fuel system (9). Remove tube (1) and tee (2).
2. INSPECT PARTS FOR DAMAGE. REPLACE AS REQUIRED.
   a. Inspect tube (1) and tee (2) for damage. If damaged, do step b.
   b. Disconnect tube nut (10) from tee (2). Replace as required.
3. DISCONNECT TUBE (11) AND REMOVE PRESSURE FLUID FILTER (12).
   a. Disconnect tube nut (13) from reducer (14). Move tube (11) away from reducer (14).



Go on to Sheet 2

2w1461

SPUR GEARSHAFT REPLACEMENT (Sheet 1 of 1)

TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)

EQUIPMENT CONDITION: Rotary pump removed (page 5-96)

REMOVAL:

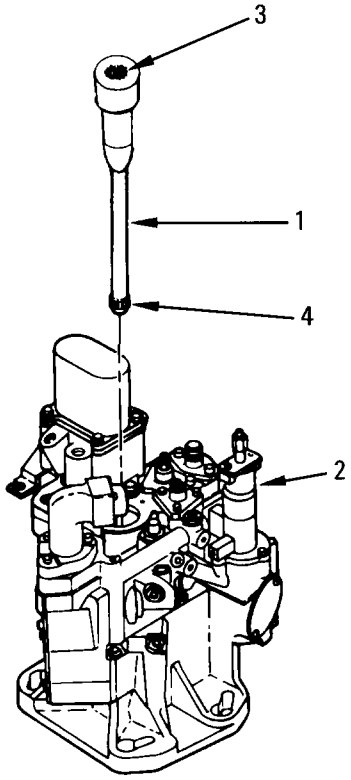
NOTE

If spur gearshaft (1) cannot be taken out by hand, use tool.

1. REMOVE GEARSHAFT (1) FROM ELECTRO-MECHANICAL FUEL SYSTEM (2).
2. INSPECT GEARSHAFT (1) FOR DAMAGE. REPLACE AS REQUIRED.
   a. Inspect gearshaft (1) for nicks, cracks, or bends. Replace as required.
   b. Inspect gearshaft (1), internal splines (3), and gear teeth (4) for nicks, chips, or missing splines (3) or teeth (4). Replace as required.

INSTALLATION:

1. POSITION GEARSHAFT (1) IN FUEL SYSTEM (2). TURN GEARSHAFT (1) CLOCKWISE OR COUNTERCLOCKWISE UNTIL GEAR TEETH (4) ALINE AND GEARSHAFT (1) GOES IN PLACE.
2. INSTALL ROTARY PUMP (PAGE 5-97).



End of Task

2w1481

TUBE ASSEMBLY (NO. 5 AND 6 BEARINGS) REPLACEMENT (Sheet 1 of 1)

TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)

SUPPLIES: Compression sleeve (Item 403, Appendix G) (2 required)

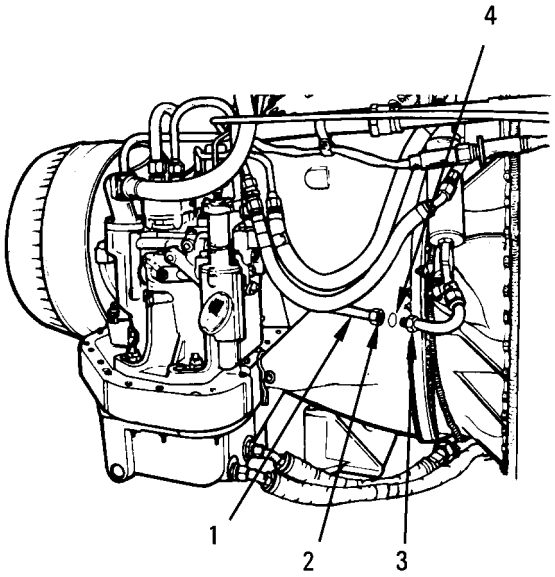
EQUIPMENT CONDITION: Powerpack removed (page 4-12)
Tube assembly (bottom of inlet guide vane actuating cylinder) removed (page 5-12)
Tube assembly (top of inlet guide vane actuating cylinder) removed (page 5-68)

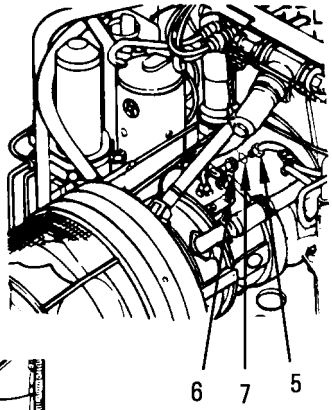
REMOVAL:

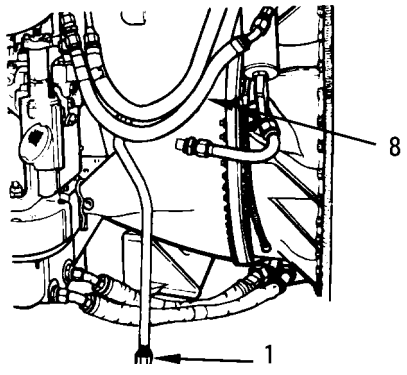
1. REMOVE TUBE (1).
   a. Unscrew tube nut (2) from tube nipple (3). Remove compression sleeve (4) .
   b. Unscrew tube nut (5) from air transfer elbow (6). Remove compression sleeve (7) .
   c. Remove tube (1) from under hose (8).
2. INSPECT PARTS FOR DAMAGE. REPLACE AS REQUIRED.

INSTALLATION:

1. INSTALL TUBE (1).
   a. Put new sleeves (4, 7) in nuts (2, 5) of tube (1).
   b. Place tube (1) under hose (8). Loosely connect nut (5) to elbow (6) and nut (2) to nipple (3).
   c. Tighten nut (5) to elbow (6).
   d. Tighten nut (2) to nipple (3).
2. INSTALL TUBE ASSEMBLY (TOP OF INLET GUIDE VANE ACTUATING CYLINDER) (PAGE 5-68).
3. INSTALL TUBE ASSEMBLY (BOTTOM OF INLET GUIDE VANE ACTUATING CYLINDER) (PAGE 5-12).
4. GROUND HOP POWERPACK (PAGE 4-37).







End of Task 2w1535

REAR TUBE ASSEMBLY (NO. 5 AND 6 BEARINGS) REPLACEMENT (Sheet 1 of 1)

TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)

SUPPLIES: Compression sleeve (Item 403, Appendix G) (2 required)

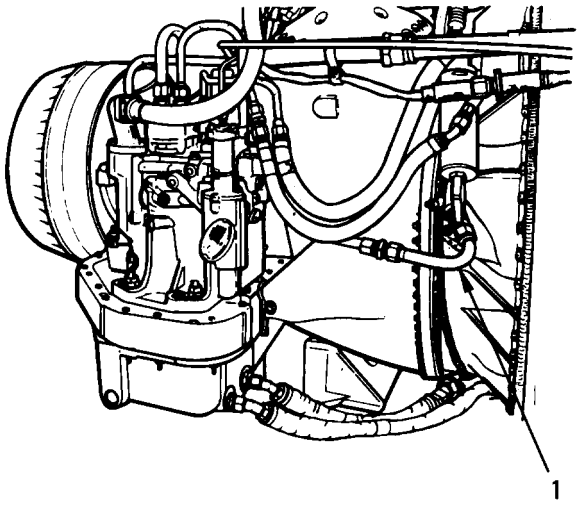
EQUIPMENT CONDITION: Powerpack removed (page 4-12)

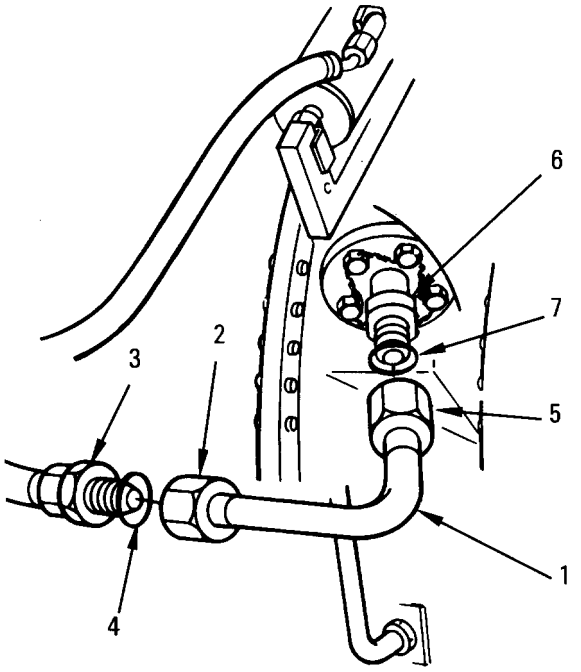
REMOVAL:

1. REMOVE TUBE (1).
   a. Unscrew tube nut (2) from tube nipple (3). Remove compression sleeve (4).
   b. Unscrew tube nut (5) from fitting (6). Remove compression sleeve (7).
   c. Remove tube (1).
2. INSPECT TUBE (1) FOR DAMAGE. REPLACE AS REQUIRED.

INSTALLATION:

1. INSTALL TUBE (1).
   a. Put new sleeves (4, 7) in nuts (2, 5).
   b. Loosely connect tube (1) to fitting (6) and nipple (3).
   c. Tighten nut (5) to fitting (6).
   d. Tighten nut (2) to nipple (3).
2. GROUND HOP POWERPACK (PAGE 4-37).





End of Task

2w1540

COMPRESSED AIR TUBE ASSEMBLY REPLACEMENT (Sheet 1 of 2)

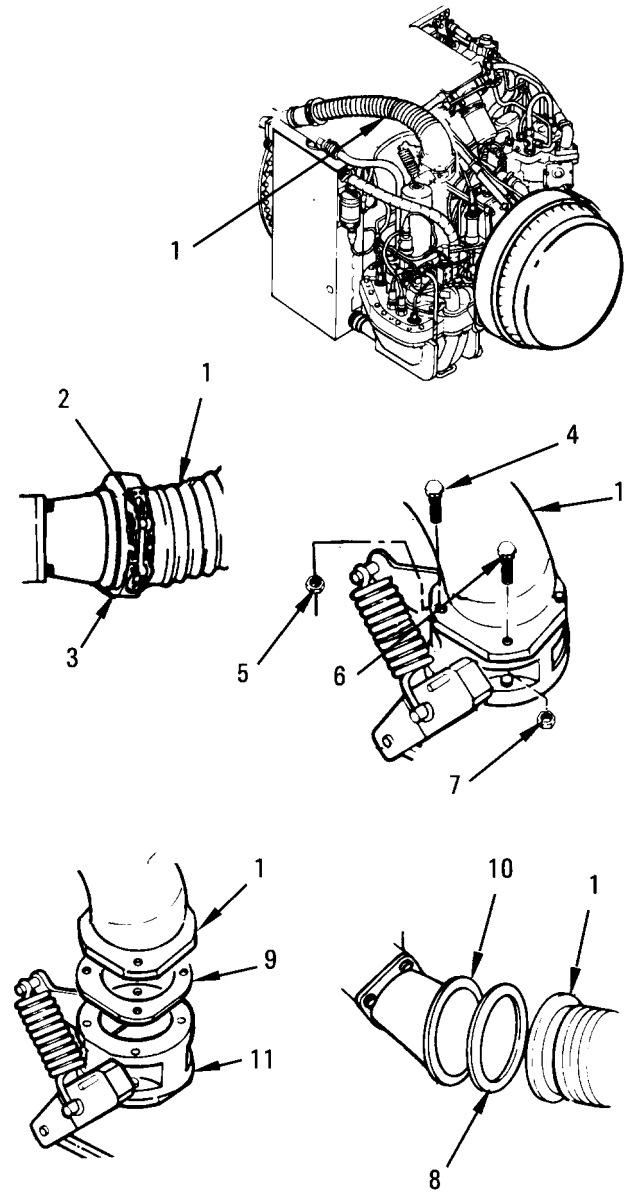
TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)
Deep style socket, 3/8-inch drive, 7/16-inch (Item 252, Appendix E)
Torque wrench, 0-200 in-lb (Item 325, Appendix E)

SUPPLIES: Air bleed gasket (Item 75, Appendix G)
Chipboard (Item 32, Appendix C)
Gasket (Item 66, Appendix G)
Pressure sensitive tape (Item 120, Appendix C)
Self-locking nut (Item 155, Appendix G) (4 required)
Self-locking nut (Item 165, Appendix G)

EQUIPMENT CONDITION: Engine starter removed (page 9-38)

REMOVAL:

1. REMOVE TUBE (1).
   a. Remove self-locking nut (2). Remove grooved clamp coupling (3) from tube (1).
   b. Remove bolt (4) and self-locking nut (5) from tube (1).
   c. Remove three bolts (6) and self-locking nuts (7) from tube (1).
   d. Lift up end of tube (1). Remove air bleed gasket (8).
   e. Remove tube (1) and gasket (9).
2. COVER BLEED VALVE OPENINGS (10, 11) WITH CHIPBOARD AND TAPE TO KEEP DIRT, MOISTURE, AND OTHER OBJECTS OUT OF ENGINE.
3. INSPECT PARTS FOR DAMAGE. REPLACE AS REQUIRED.



Go on to Sheet 2

2w1541

AIR TUBE ASSEMBLY (NO. 2 AND 3 BEARINGS) REPLACEMENT (Sheet 1 of 1)

TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)
Ratchet handle, 3/8-inch drive (Item 109, Appendix E)
Socket, 3/8-inch drive, 3/8-inch (Item 232, Appendix E)

SUPPLIES: Flared tube sleeve (Item 398, Appendix G)
O-ring (Item 257, Appendix G)
Shortening compound (Item 112, Appendix C)

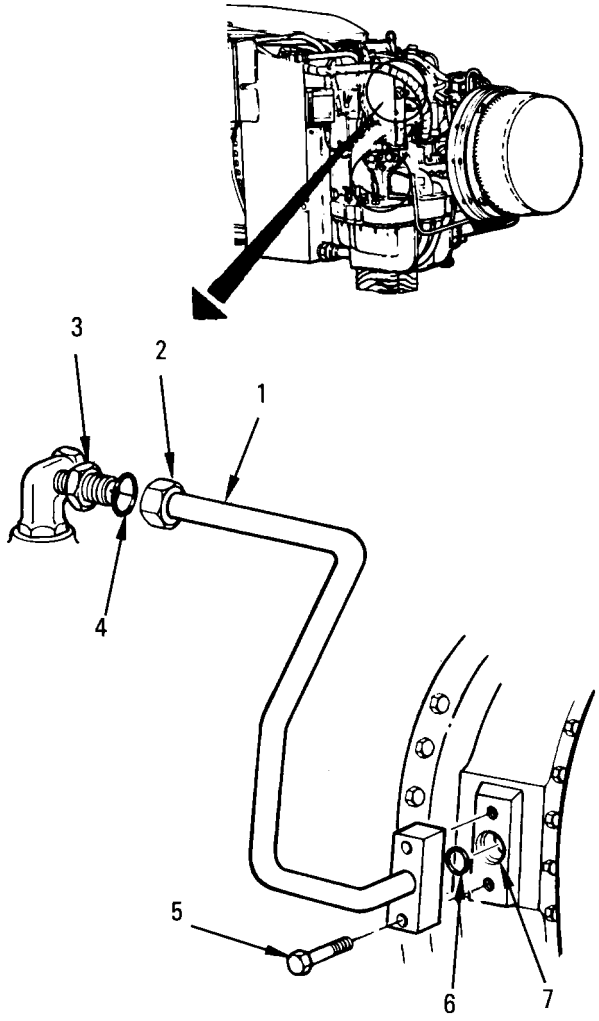
EQUIPMENT CONDITION: Powerpack removed (page 4-12)

REMOVAL:

1. REMOVE AIR TUBE (1).
   a. Disconnect tube nut (2) from straight adapter (3). Remove flared tube sleeve (4).
   b. Remove two bolts (5) and O-ring (6). Remove tube (1).
2. INSPECT PARTS FOR DAMAGE. REPLACE AS REQUIRED.

INSTALLATION:

1. INSTALL TUBE (1).
   a. Put new sleeve (4) in nut (2) of tube (1).
   b. Coat new O-ring (6) with shortening compound and put it in recessed hole (7).
   c. Hold tube (1) in place on engine. Install two bolts (5).
   d. Screw nut (2) on adapter (3).
2. GROUND HOP POWERPACK (PAGE 4-37).



End of Task

2w1548

SCREEN ASSEMBLY (ENGINE AIR INLET) REPLACEMENT (Sheet 1 of 3)

TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)
Tapered drive pin punch, 1/4-inch (Item 180, Appendix E)

SUPPLIES: Preformed packing (Item 237, Appendix G)
Shortening compound (Item 112, Appendix C)
If screen has three bolts, you will also need:
Adhesive (Item 1, Appendix C)
Keywasher (Item 94, Appendix G)

EQUIPMENT CONDITION: Plenum-to-engine plain seal removed (page 4-55)

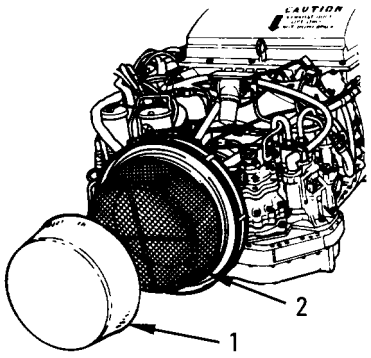
REMOVAL:

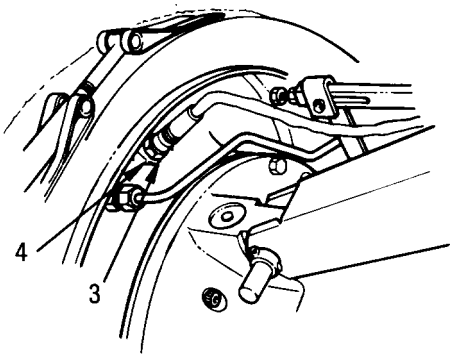
1. REMOVE INTAKE COVER (1) FROM SCREEN (2).
2. DISCONNECT PLUG CONNECTOR 3W105-P34 (3) FROM TEMPERATURE ROTOR SENSOR RECEPTACLE CONNECTOR J34 (4).

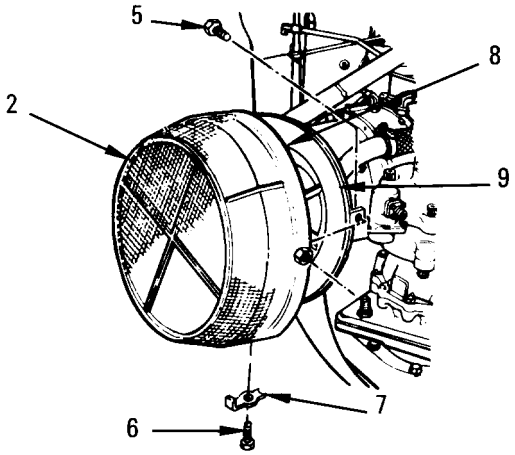
NOTE

- If screen assembly (2) is held by two bolts (5), do step 3.
- If screen (2) is held by two bolts (5) and bolt (6) with keywasher (7), do step 4.

3. REMOVE SCREEN (2). GO TO STEP 5.
   a. Remove bolts (5) from screen rim (8).
   b. Remove screen (2) from inlet housing (9). Go to step 5.







Go on to Sheet 2

2w1549

ACCESSORY GEARBOX VENT HOSE REPLACEMENT (Sheet 1 of 1)

TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)

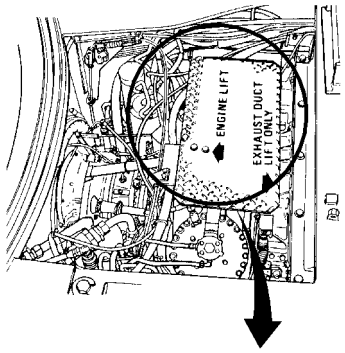
EQUIPMENT CONDITION: Rear arm opened (page 17-188)
Engine access cover removed (TM 5-5420-232-10)

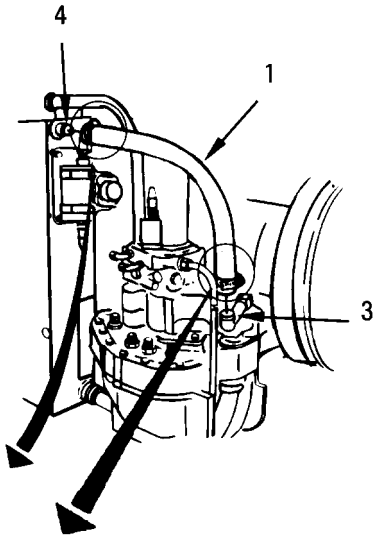
REMOVAL:

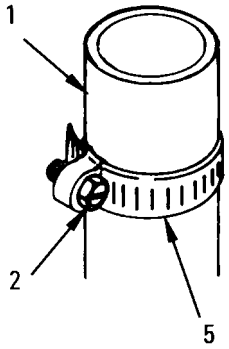
1. REMOVE HOSE (1).
   a. Loosen two clamp screws (2) on hose (1).
   b. Pull hose (1) from fittings (3, 4). Remove two hose clamps (5) from hose (1).
2. INSPECT PARTS FOR DAMAGE. REPLACE AS REQUIRED.

INSTALLATION:

1. INSTALL HOSE (1).
   a. Put two clamps (5) on ends of hose (1). Push ends of hose (1) on fittings (3, 4).
   b. Tighten two screws (2).
2. INSTALL ENGINE ACCESS COVER (TM 5-5420-232-10).
3. CLOSE REAR ARM (PAGE 17-189).







End of Task

2w1555

HOSE ASSEMBLY (NO. 5 INNER BEARING SCAVENGE) REPLACEMENT (Sheet 1 of 1)

TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)

SUPPLIES: Compression sleeve (Item 403, Appendix G) (2 required)
Protective caps and plugs (bulk)

EQUIPMENT CONDITION: Powerpack removed (page 4-12)

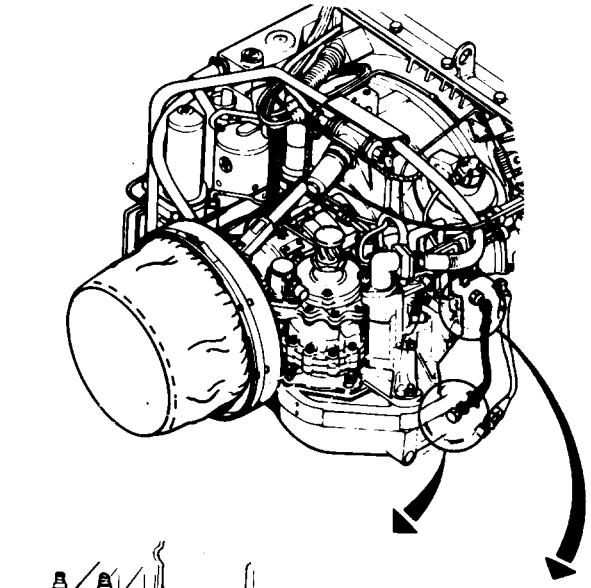
REFERENCES: TM 5-5420-232-10

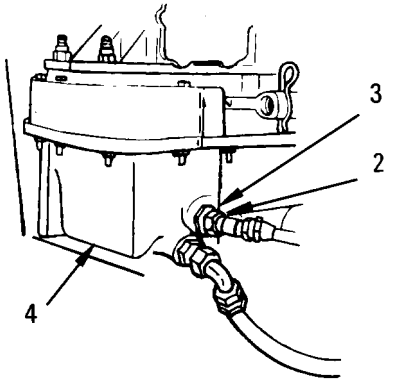
REMOVAL:

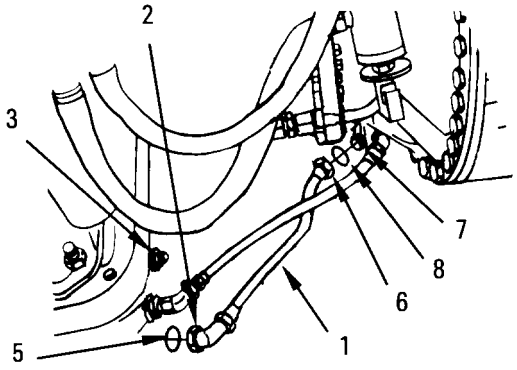
1. REMOVE HOSE (1).
   a. Disconnect hose nut (2) from adapter (3) on gearbox (4). Quickly cap adapter (3) with cap. Remove compression sleeve (5).
   b. Disconnect hose nut (6) from generator tube (7). Remove compression sleeve (8).
2. INSPECT HOSE (1) FOR DAMAGE. REPLACE AS REQUIRED.

INSTALLATION:

1. INSTALL HOSE (1).
   a. Put new sleeves (5, 8) in nuts (2, 6) of hose (1).
   b. Put hose (1) in place at gearbox (4) and tube (7).
   c. Connect nut (6) to tube (7).
   d. Remove cap from adapter (3) and quickly connect nut (2) to adapter (3) on gearbox (4).
2. SERVICE OIL TANK (TM 5-5420-232-10).
3. GROUND HOP POWERPACK (PAGE 4-37).







End of Task 2w1556

TUBE ASSEMBLY (REDUCTION GEARBOX OIL FEED) REPLACEMENT (Sheet 1 of 1)

TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)

SUPPLIES: Compression sleeve (Item 403, Appendix G) (2 required)

EQUIPMENT CONDITION: Powerpack removed (page 4-12)

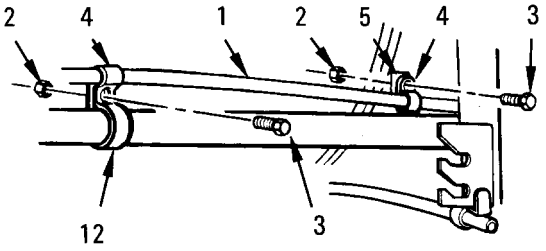
REFERENCES: TM 5-5420-232-10

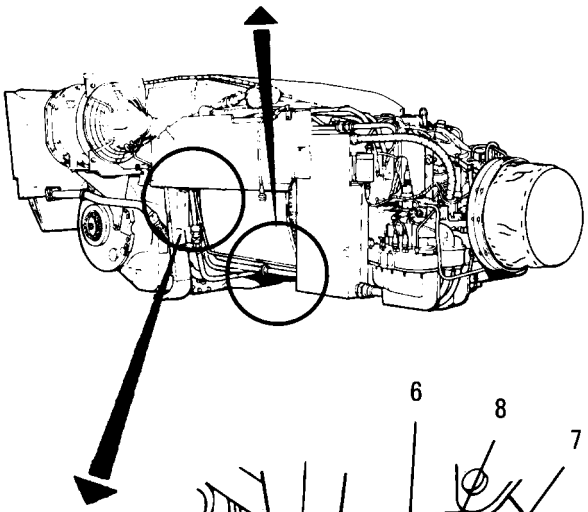
REMOVAL:

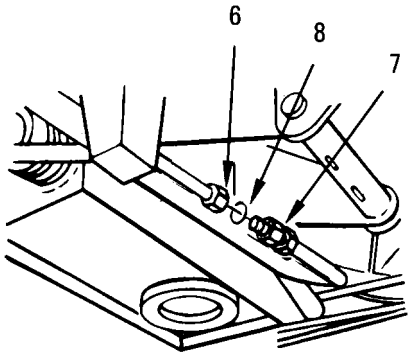
1. REMOVE TUBE (1).
   a. Remove two nuts (2) and screws (3) from two loop clamps (4) and bracket (5). Remove two clamps (4) from tube (1).
   b. Disconnect tube nut (6) from tube nipple (7). Remove compression sleeve (8).
   c. Disconnect tube nut (9) and remove other end of tube (1) from tube (10). Remove Remove compression sleeve (11).
2. INSPECT TUBE (1) FOR DAMAGE. REPLACE AS REQUIRED.

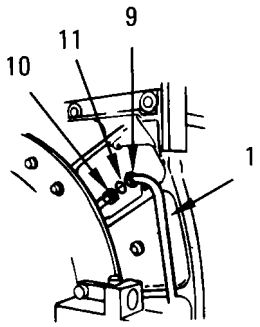
INSTALLATION:

1. INSTALL TUBE (1).
   a. Put new sleeves (8, 11) in nuts (6, 9) of tube (1).
   b. Connect nuts (6, 9) on tube (1) to nipple (7) and tube (10).
   c. Tighten nut (6) to nipple (7) and nut (9) to tube (10).
   d. Put two clamps (4) on tube (1). Put one screw (3) through clamp (4) and bracket (5). Install one nut (2).
   e. Put other screw (3) through clamps (4, 12). Install other nut (2).
2. SERVICE OIL TANK (TM 5-5420-232-10).
3. GROUND HOP POWERPACK (PAGE 4-37).









End of Task

2w1557

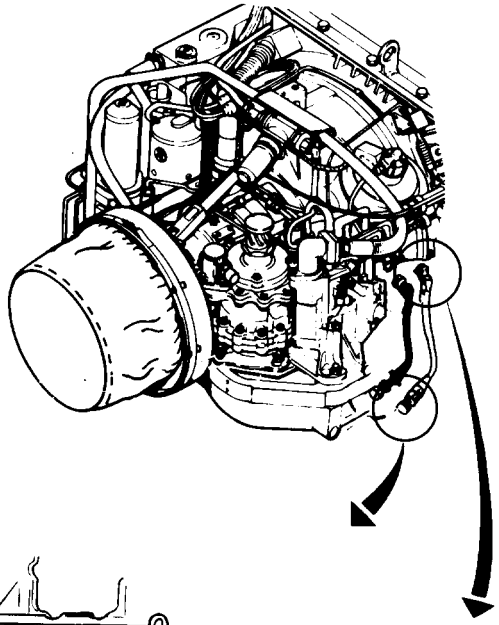
HOSE ASSEMBLY (NO. 6A AND 6B BEARING SCAVENGE) REPLACEMENT (Sheet 1 of 1)

TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)

SUPPLIES: Compression sleeve (Item 403, Appendix G) (2 required)
Protective caps and plugs (bulk)

EQUIPMENT CONDITION: Powerpack removed (page 4-12)

REFERENCES: TM 5-5420-232-10

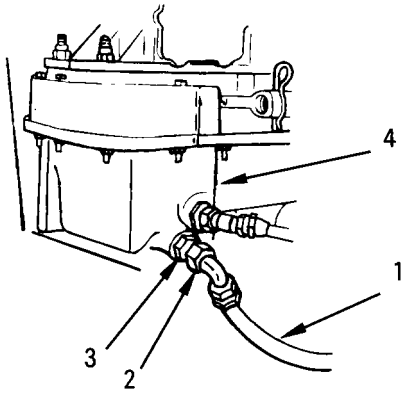


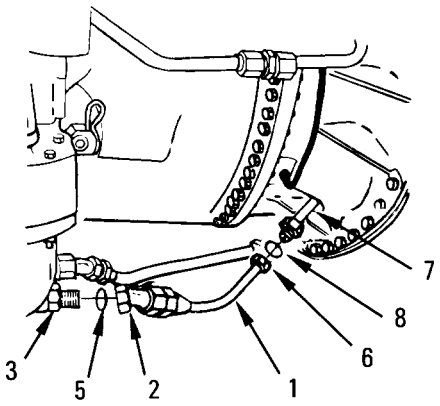
REMOVAL:

1. REMOVE HOSE (1).
   a. Disconnect nut (2) from adapter (3) on gearbox (4). Quickly cap adapter (3) with cap. Remove compression sleeve (5).
   b. Disconnect hose nut (6) from regenerator tube (7). Remove Remove compression sleeve (8).
2. INSPECT HOSE (1) FOR DAMAGE. REPLACE AS REQUIRED.

INSTALLATION:

1. INSTALL HOSE (1).
   a. Put new sleeves (5, 8) in nuts (2, 6) of hose (1).
   b. Put hose (1) in place at gearbox (4) and tube (7).
   c. Connect nut (6) to tube (7).
   d. Remove cap from adapter (3) and quickly connect nut (2) to adapter (3) on gearbox (4).
2. SERVICE OIL TANK (TM 5-5420-232-10).
3. GROUND HOP POWERPACK (PAGE 4-37).





End of Task 2w1558

ON-CONDITION OIL CHANGE (Sheet 3 of 3)

11. REMOVE OIL PRESSURE FLUID FILTER (PAGE 5-126, STEPS 1, 2, AND 3).

12. REMOVE MESH FILTER (1).

    a. Remove tube nut (2) from nipple (3). Remove tube nut (4) from nipple (5).

    b. Remove tube (6) and flared conical seal (7). Remove filter (1) from nipple (3).

    c. Inspect filter (1) for metal chips. Clean filter (1) with solvent and dry thoroughly.

13. INSPECT PARTS FOR DAMAGE. REPLACE AS REQUIRED.

FILL:

1. INSTALL FILTER (1).

    a. Place filter (1) in nipple (3). Put new seal (7) in end of tube (6).

    b. Install tube (6) and tighten nuts (2, 4).

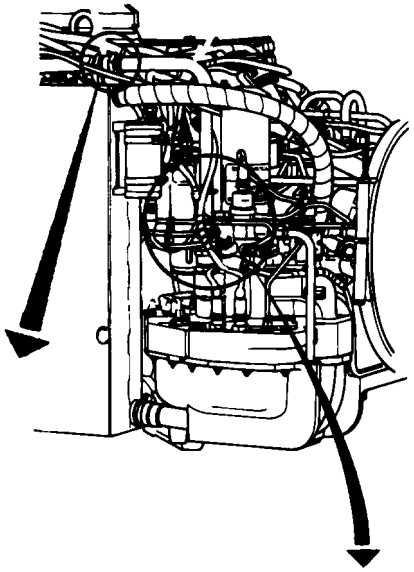
2. INSTALL OIL TANK FILTER ASSEMBLY (PAGE 5-145, STEPS 1, 2, AND 3).

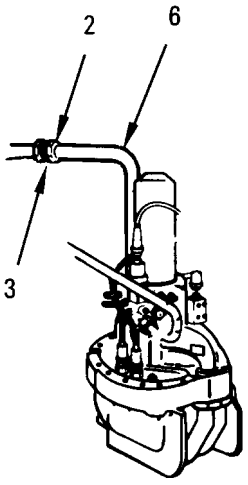
3. INSTALL OIL PRESSURE FLUID FILTER (PAGE 5-127, STEP 1).

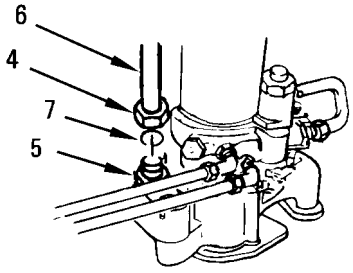
4. FILL OIL TANK WITH PROPER GRADE OIL FOR CLIMATIC CONDITIONS AND INSTALL DIPSTICK (TM 5-5420-232-10).

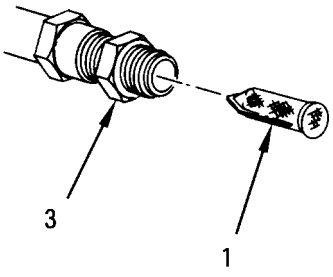
5. GROUND HOP POWERPACK (PAGE 4-37).

6. CHECK OIL LEVEL. ADD OIL AS REQUIRED (TM 5-5420-232-10).









End of Task

2w4959

ENGINE OIL PUMP ASSEMBLY REPLACEMENT (Sheet 1 of 5)

TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)
Extension, 3/8-inch drive, 12-inch (Item 75, Appendix E)
Open end wrench, 1-3/8 inch and 1-1/2 inch (Item 306, Appendix E)
Open end wrench, 1-1/2 inch and 1-3/4 inch (Item 304, Appendix E)
Open end wrench, 1-7/16 inch and 1-5/8 inch (Item 308, Appendix E)
Ratchet handle, 3/8-inch drive (Item 109, Appendix E)
Socket, 3/8-inch drive, 7/16-inch (Item 234, Appendix E)
Socket, 3/8-inch drive, 9/16-inch (Item 235, Appendix E)
Torque wrench, 0-600 in-lb (Item 332, Appendix E)

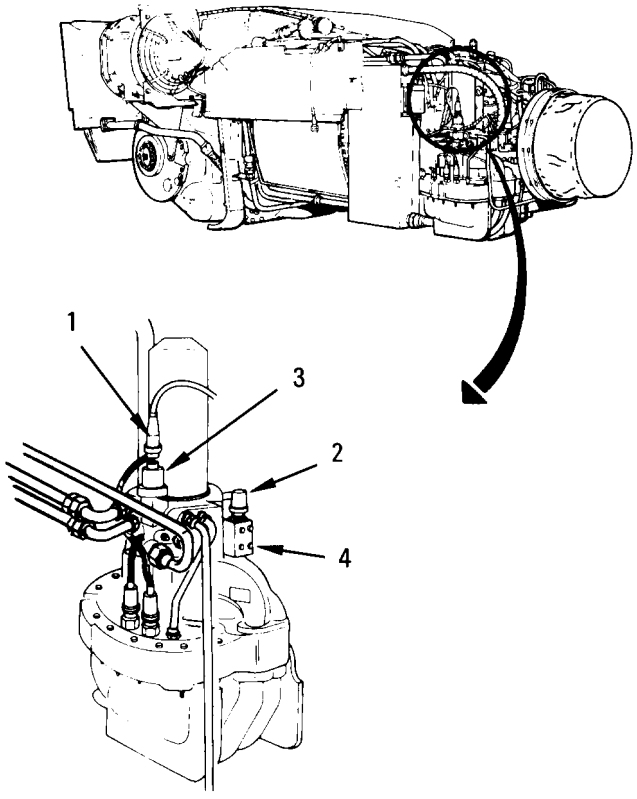
SUPPLIES: Flared conical seal (Item 402, Appendix G)
Flared tube sleeve (Item 398, Appendix G) (3 required)
Compression sleeve (Item 403, Appendix G)
Flared conical seal (Item 401, Appendix G)
Preformed packing (Item 250, Appendix G)
Preformed packing (Item 263, Appendix G)
Preformed packing (Item 231, Appendix G)
Preformed packing (Item 244, Appendix G)
Shortening compound (Item 112, Appendix C)

EQUIPMENT CONDITION: Powerpack removed (page 4-12)
Oil tank drained (page 5-129)
Tube assembly (no. 1 bearing scavenge) removed (page 5-152)
Accessory gearbox vent hose removed (page 5-121)
Tube assembly (No. 1 bearing feed) removed (page 5-163)

REFERENCES: TM 5-5420-232-10

REMOVAL:

1. DISCONNECT PLUGS (1, 2).
   a. Disconnect plug P30 (1) from pressure switch (3).
   b. Disconnect plug P7 (2) from pressure filter bypass switch (4).

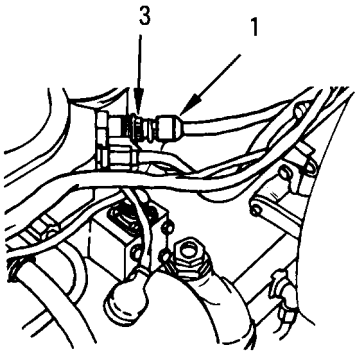


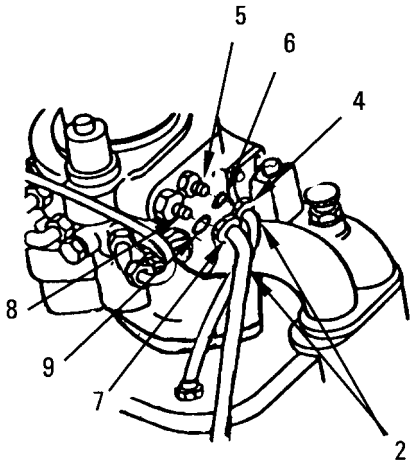
Go on to Sheet 2

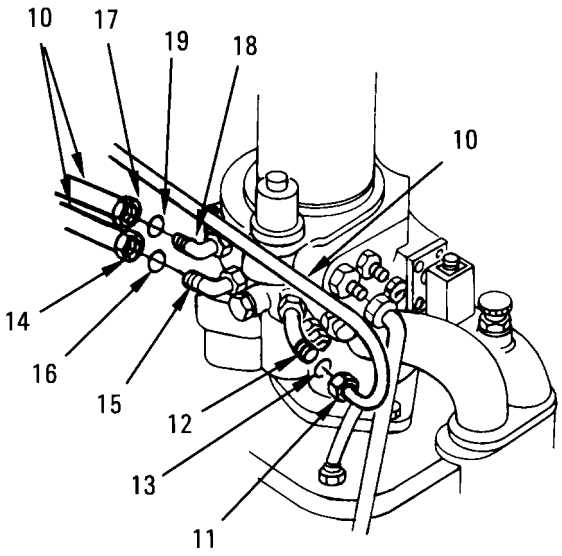
2w1562

ENGINE OIL PUMP ASSEMBLY REPLACEMENT (Sheet 2 of 5)

2. DISCONNECT PLUG P9 (1) AND TWO TUBE ASSEMBLIES (2).
   a. Disconnect plug P9 (1) from oil temperature transmitter (3).
   b. Disconnect tube nut (4) from nipple (5). Remove flared tube sleeve (6).
   c. Disconnect tube nut (7) from reducer (8). Remove compression sleeve (9).
3. DISCONNECT THREE TUBE ASSEMBLIES (10).
   a. Disconnect tube nut (11) from elbow (12). Remove flared tube sleeve (13).
   b. Disconnect tube nut (14) from elbow (15). Remove flared tube sleeve (16).
   c. Disconnect tube nut (17) from elbow (18). Remove flared conical seal (19).





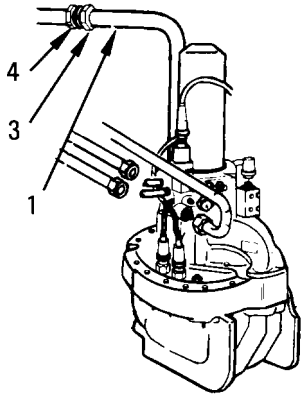


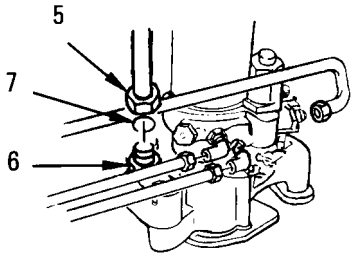
Go on to Sheet 3

2w1563

ENGINE OIL PUMP ASSEMBLY REPLACEMENT (Sheet 3 of 5)

4. REMOVE TUBE ASSEMBLY (1) AND FLUID FILTER ELEMENT (2).
   a. Disconnect tube nut (3) from nipple (4).
   b. Disconnect tube nut (5) from nipple (6). Remove flared conical seal (7).
   c. Remove element (2) from nipple (4).
5. REMOVE PUMP (8).
   a. Remove three screws (9) and washers (10) from accessory gearbox (11).
   b. Remove screw (12) and washer (13) from gearbox (11).
   c. Lift pump (8) from gearbox (11).
   d. Remove four preformed packings (14 thru 17).
6. INSPECT PARTS FOR DAMAGE. REPLACE AS REQUIRED.



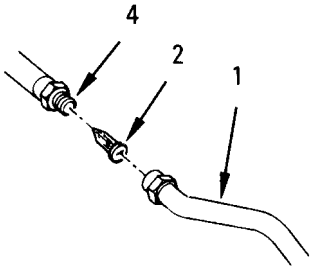


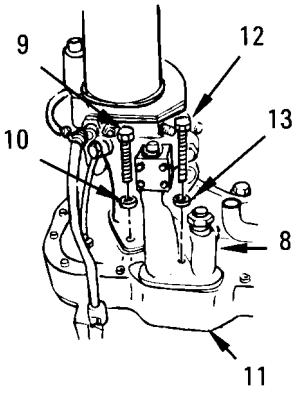
INSTALLATION:

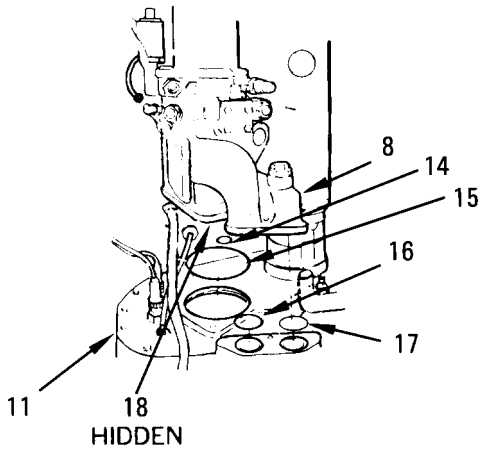
CAUTION

Make sure shaft (18) is secure in bottom of pump (8) before installation.

1. INSTALL PUMP (8). TORQUE THREE SCREWS (9) BETWEEN 250-325 LB-IN (28-37 N•m), AND SCREW (12) BETWEEN 70-95 LB-IN (8-11 N•m).
   a. Coat four new packings (14 thru 17) with shortening compound.
   b. Put packings (14, 16, 17) in place on gearbox (11) and put packing (15) on bottom of pump (8).
   c. Lower and line up pump (8) on gearbox (11).
   d. Install three screws (9) and washers (10) to gearbox (11). Torque screws (9) between 250-325 lb-in (28-37 N•m).
   e. Install screw (12) and washer (13) in gearbox (11). Torque screw (12) between 70-95 lb-in (8-11 N•m).







Go on to Sheet 4

2w4709

ENGINE OIL PUMP ASSEMBLY REPLACEMENT (Sheet 4 of 5)

2. INSTALL ELEMENT (1) AND TUBE (2).

   a. Put element (1) in nipple (3). Put new seal (4) in nut (5). Put tube (2) in place on nipple (3) and nipple (6).

   b. Connect nut (7) to nipple (3).

   c. Connect nut (5) to nipple (6).

3. CONNECT FIVE TUBES (8 THRU 12).

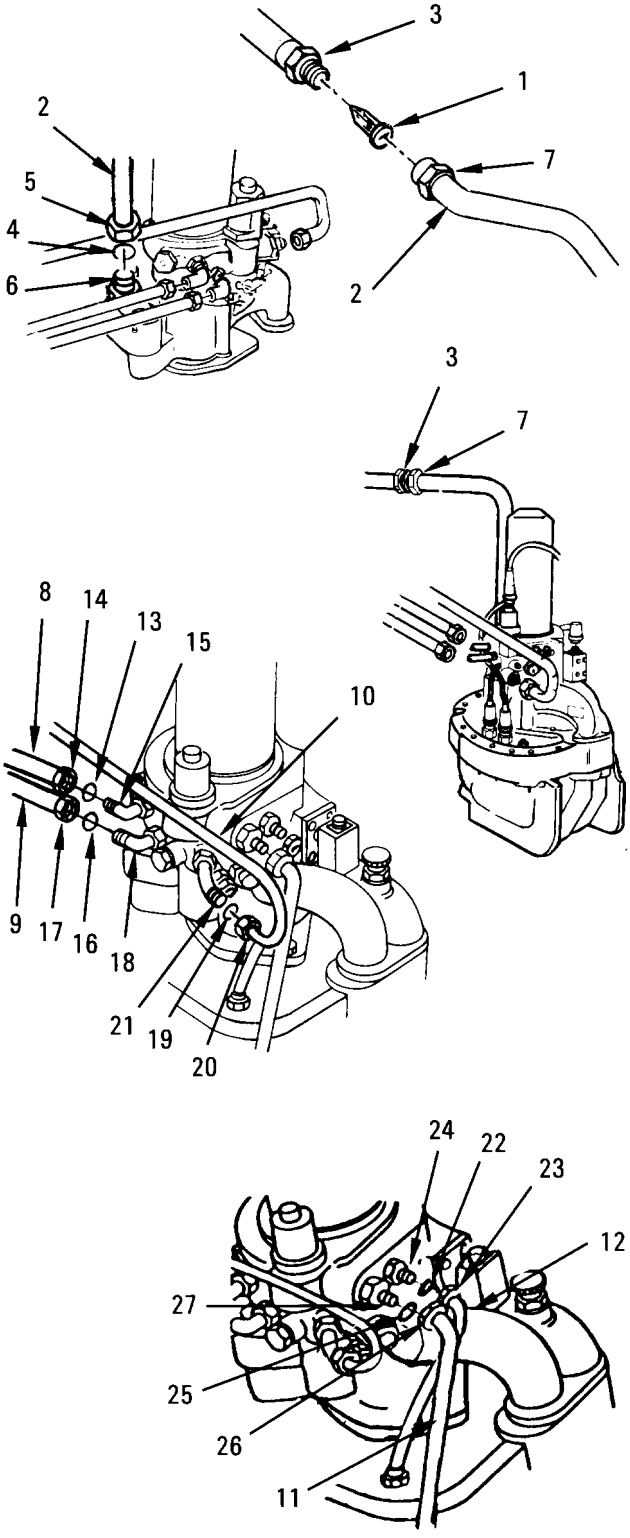
   a. Put new seal (13) in nut (14). Connect nut (14) to elbow (15).

   b. Put new sleeve (16) in nut (17). Connect nut (17) to elbow (18).

   c. Put new sleeve (19) in nut (20). Connect nut (20) to elbow (21).

   d. Put new sleeve (22) in nut (23). Connect nut (23) to adapter (24).

   e. Put new sleeve (25) in nut (26). Connect nut (26) to adapter (27).

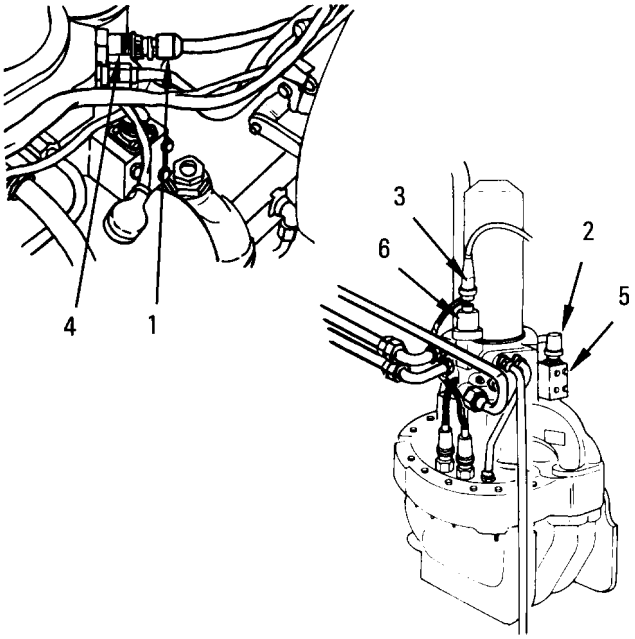


Go on to Sheet 5

2w1565

ENGINE OIL PUMP ASSEMBLY REPLACEMENT (Sheet 5 of 5)

4. CONNECT PLUG P9 (1), PLUG P7 (2), AND PLUG P30 (3).
   a. Connect plug P9 (1) to transmitter (4).
   b. Connect plug P7 (2) to switch (5).
   c. Connect plug P30 (3) to switch (6).
5. INSTALL TUBE ASSEMBLY (NO. 1 BEARING SCAVENGE) (PAGE 5-152).
6. INSTALL SCREEN ASSEMBLY (ENGINE AIR INLET) (PAGE 5-117).
7. INSTALL TUBE ASSEMBLY (NO. 1 BEARING FEED) (PAGE 5-163).
8. INSTALL ACCESSORY GEARBOX VENT HOSE (PAGE 5-121).
9. SERVICE OIL TANK (TM 5-5420-232-10).
10. GROUND HOP POWERPACK (PAGE 4-37).



End of Task

LUBRICATING OIL TANK ASSEMBLY REPLACEMENT (Sheet 1 of 4)

TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)
Adapter, 1/2-inch to 3/8-inch (Item 4, Appendix E)
Electrical connector slip joint pliers (Item 166, Appendix E)
Torque wrench, 0-600 in-lb (Item 332, Appendix E)

SUPPLIES: Antiseize compound (Item 19, Appendix C)
Preformed packing (Item 214, Appendix G)
Preformed packing (Item 261, Appendix G) (2 required)
Self-locking nut (Item 179, Appendix G)
Shortening compound (Item 112, Appendix C)

PERSONNEL: Two

Go on to Sheet 2 2w1566

OIL TANK FILTER ASSEMBLY REPLACEMENT (Sheet 1 of 1)

TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)
Open end wrench, 1-1/2 inch and 1-3/4 inch (Item 304, Appendix E)
Open end wrench, 1-7/16 inch and 1-5/8 inch (Item 308, Appendix E)

SUPPLIES: Preformed packing (Item 230, Appendix G)

EQUIPMENT CONDITION: Powerpack removed (page 4-12)
Oil tank drained (page 5-129)
Upper side airflow baffle removed (page 8-4)
Lower side air baffle removed (page 8-5)

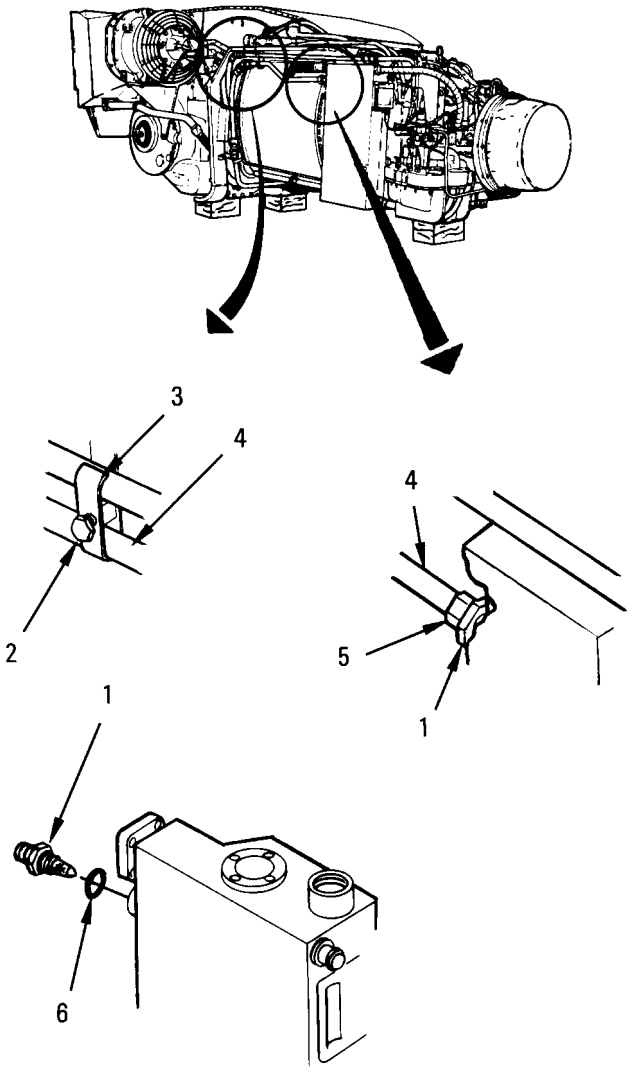
REFERENCES: TM 5-5420-232-10

REMOVAL:

1. REMOVE FILTER (1).
   a. Loosen screw (2) in retaining strap (3) on tube (4).
   b. Disconnect tube nut (5) at filter (1). Push tube (4) back to clear filter (1).
   c. Remove filter (1) and preformed packing (6).
2. INSPECT PARTS FOR DAMAGE. REPLACE AS REQUIRED.

INSTALLATION:

1. INSTALL FILTER (1).
   a. Put new packing (6) on filter (1) and install filter (1).
   b. Connect nut (5) to filter (1).
   c. Tighten screw (2) in strap (3).
2. INSTALL LOWER SIDE AIR BAFFLE (PAGE 8-5).
3. INSTALL UPPER SIDE AIRFLOW BAFFLE (PAGE 8-4)
4. SERVICE OIL TANK (TM 5-5420-232-10).
5. GROUND HOP POWERPACK (PAGE 4-37).



End of Task 2w1573

TUBE ASSEMBLY (ACCESSORY GEARBOX FEED) REPLACEMENT (Sheet 1 of 2)

TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)

SUPPLIES: Flared tube sleeve (Item 398, Appendix G) (2 required)

PERSONNEL: Two

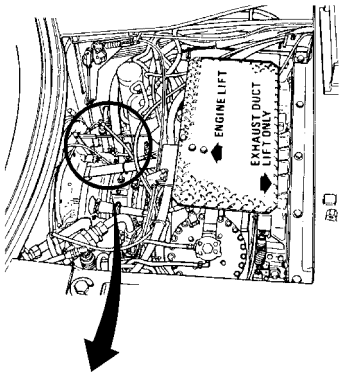
EQUIPMENT CONDITION: Rear arm opened (page 17-188)
Engine access cover removed (TM 5-5420-232-10)

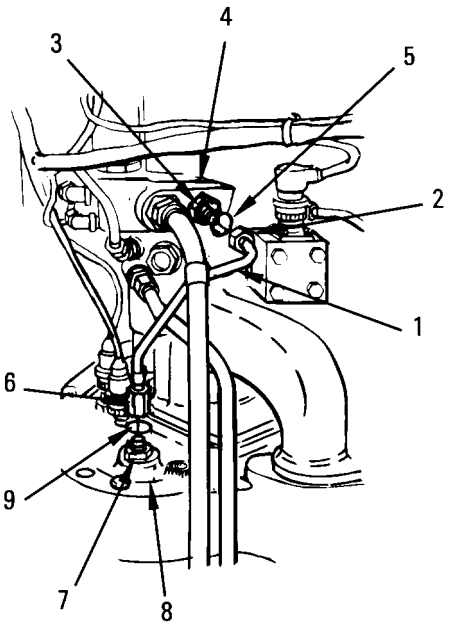
REMOVAL:

1. REMOVE TUBE (1).
   a. Disconnect tube nut (2) from nipple (3) on forward side of engine oil pump (4). Remove flared tube sleeve (5).
   b. Disconnect tube nut (6) from adapter (7) on accessory gearbox (8). Remove flared tube sleeve (9). Remove tube (1).
2. INSPECT TUBE (1) FOR DAMAGE. REPLACE AS REQUIRED.

INSTALLATION:

1. INSTALL TUBE (1).
   a. Put new sleeves (5, 9) in nuts (2, 6) of tube (1).
   b. Put tube (1) in place at forward side of pump (4) and gearbox (8).
   c. Connect nuts (2, 6) to nipple (3) and adapter (7).
2. RUN ENGINE AND CHECK FOR OIL LEAKS. REPAIR AS REQUIRED.
   a. When told by lead soldier, start and run engine (TM 5-5420-232-10).





Go on to Sheet 2

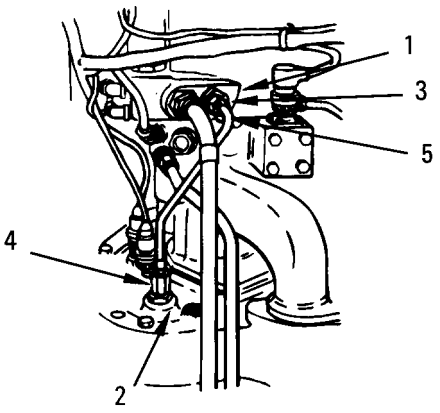
2w1574

TUBE ASSEMBLY (ACCESSORY GEARBOX FEED) REPLACEMENT (Sheet 2 of 2)

b. Inspect pump (1) and gearbox (2) for oil leaks.

c. Inspect nuts (3, 4) for oil leaks. If leaks are found, tell driver to shut down engine and do step d.

d. Loosen nuts (3, 4) one full turn, then tighten nuts (3, 4). Repeat steps a, b, and c. If either nut (3, 4) still leaks, repeat steps 1 and 2 to replace tube (5).



3. INSTALL ENGINE ACCESS COVER (TM 5-5420-232-10).

4. CLOSE REAR ARM (PAGE 17-189).

End of Task

TUBE ASSEMBLY (NO. 2 AND 3 BEARING FEED) REPLACEMENT (Sheet 1 of 2)

TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)

SUPPLIES: Flared tube sleeve (Item 398, Appendix G) (2 required)

EQUIPMENT CONDITION: Bearing feed tube assemblies clamps removed (page 5-162)

REFERENCES: TM 5-5420-232-10

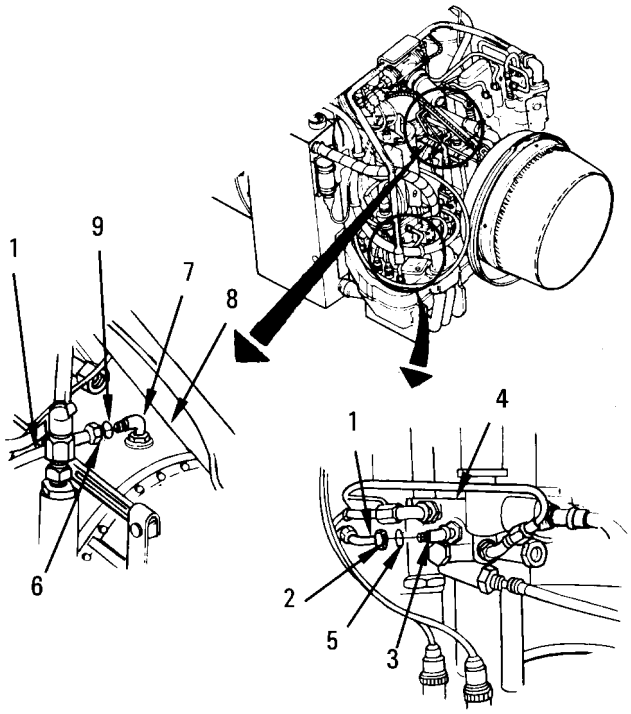
REMOVAL:

1. REMOVE TUBE (1).

a. Disconnect tube nut (2) from elbow (3) at engine oil pump (4). Remove flared tube sleeve (5).

b. Disconnect tube nut (6) from elbow (7) at compressor housing (8). Remove flared tube sleeve (9). Remove tube (1).

2. INSPECT TUBE (1) FOR DAMAGE. REPLACE AS REQUIRED.



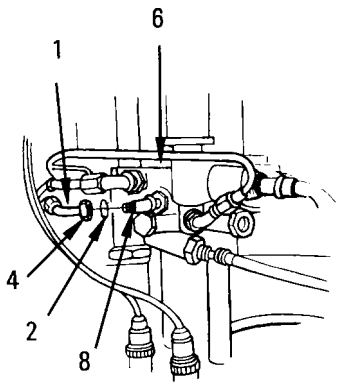
Go on to Sheet 2

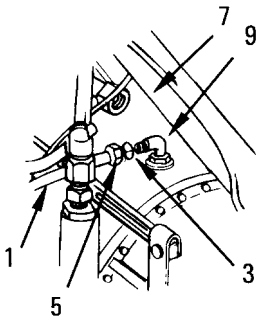
2w1575

TUBE ASSEMBLY (NO. 2 AND 3 BEARING FEED) REPLACEMENT (Sheet 2 of 2)

INSTALLATION:

1. INSTALL TUBE (1).
   a. Put new sleeves (2, 3) in nuts (4, 5) of tube (1).
   b. Put tube (1) in place at pump (6) and housing (7).
   c. Connect nuts (4, 5) to elbows (8, 9).
2. INSTALL BEARING FEED TUBE ASSEMBLIES CLAMPS (PAGE 5-162).
3. SERVICE OIL TANK (TM 5-5420-232-10).
4. GROUND HOP POWERPACK (PAGE 4-37).





End of Task

TUBE ASSEMBLY (NO. 4 BEARING FEED) REPLACEMENT (Sheet 1 of 2)

TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)

SUPPLIES: Flared tube sleeve (Item 398, Appendix G) (2 required)

EQUIPMENT CONDITION: Powerpack removed (page 4-12)
Engine starter removed (page 9-38)
Bearing feed tube assemblies clamps removed (page 5-162)

REFERENCES: TM 5-5420-232-10

Go on to Sheet 2

2w1577

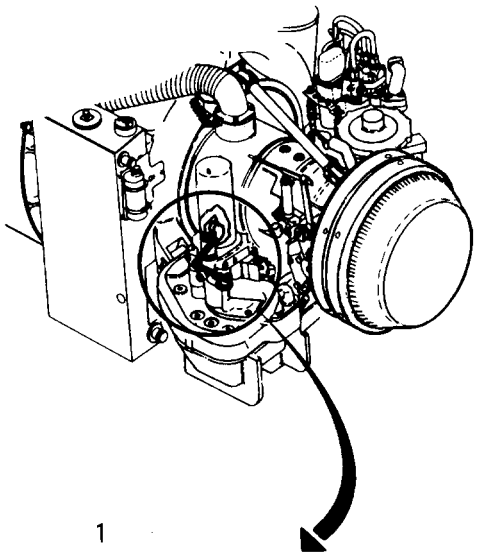
TUBE ASSEMBLY (NO. 4 BEARING FEED) REPLACEMENT (Sheet 2 of 2)

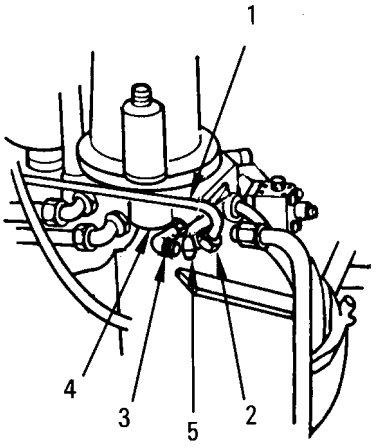
REMOVAL:

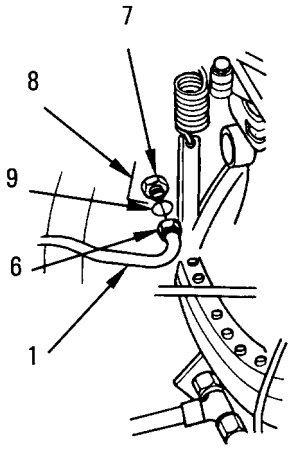
1. REMOVE TUBE (1).
   a. Disconnect tube nut (2) from elbow (3) at engine oil pump (4). Remove flared tube sleeve (5).
   b. Disconnect tube nut (6) from adapter (7) at diffuser housing (8). Remove flared tube sleeve (9). Remove tube (1).
2. INSPECT TUBE (1) FOR DAMAGE. REPLACE AS REQUIRED.

INSTALLATION:

1. INSTALL TUBE (1).
   a. Put new sleeves (5, 9) in nuts (2, 6) of tube (1).
   b. Put tube (1) in place at pump (4) and housing (8).
   c. Connect nuts (2, 6) to elbow (3) and adapter (7).
2. INSTALL BEARING FEED TUBE ASSEMBLIES CLAMPS (PAGE 5-162).
3. INSTALL ENGINE STARTER (PAGE 9-41).
4. SERVICE OIL TANK (TM 5-5420-232-10).
5. GROUND HOP POWERPACK (PAGE 4-37).







End of Task

2w1578

TUBE ASSEMBLY (NO. 5 AND 6 BEARING FEED) REPLACEMENT (Sheet 1 of 1)

TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)

SUPPLIES: Flared conical seal (Item 402, Appendix G) (2 required)

EQUIPMENT CONDITION: Bearing feed tube assemblies clamp removed (page 5-162)

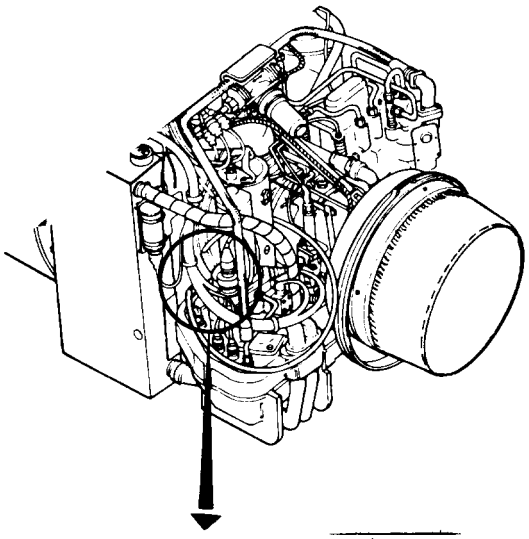
REFERENCES: TM 5-5420-232-10

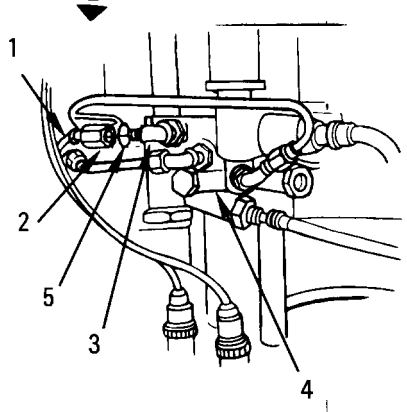
REMOVAL:

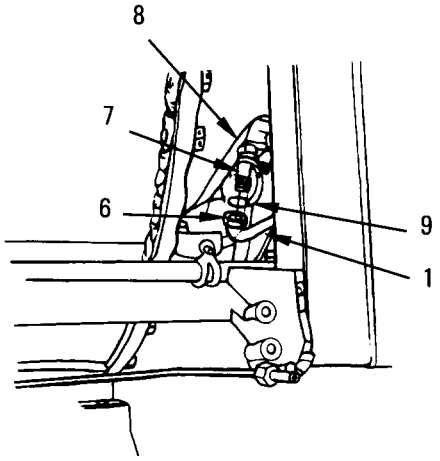
1. REMOVE TUBE (1).
   a. Disconnect tube nut (2) from elbow (3) at engine oil pump (4). Remove flared conical seal (5).
   b. Disconnect tube nut (6) from tube (7) at regenerator housing (8). Remove flared conical seal (9). Remove tube (1).
2. INSPECT TUBE (1) FOR DAMAGE. REPLACE AS REQUIRED.

INSTALLATION:

1. INSTALL TUBE (1).
   a. Put new seals (5, 9) in nuts (2, 6) of tube (1).
   b. Put tube (1) in place at pump (4) and housing (8).
   c. Connect nut (2) to elbow (3) and nut (6) to tube (7).
2. INSTALL BEARING FEED TUBE ASSEMBLIES CLAMP (PAGE 5-162).
3. SERVICE OIL TANK (TM 5-5420-232-10).
4. GROUND HOP POWERPACK (PAGE 4-37).







End of Task 2w1579

TUBE ASSEMBLY (REDUCTION GEARBOX OIL FEED - FORWARD) REPLACEMENT (Sheet 1 of 1)

TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)

SUPPLIES: Compression sleeve (Item 403, Appendix G) (2 required)

EQUIPMENT CONDITION: Powerpack removed (page 4-12)

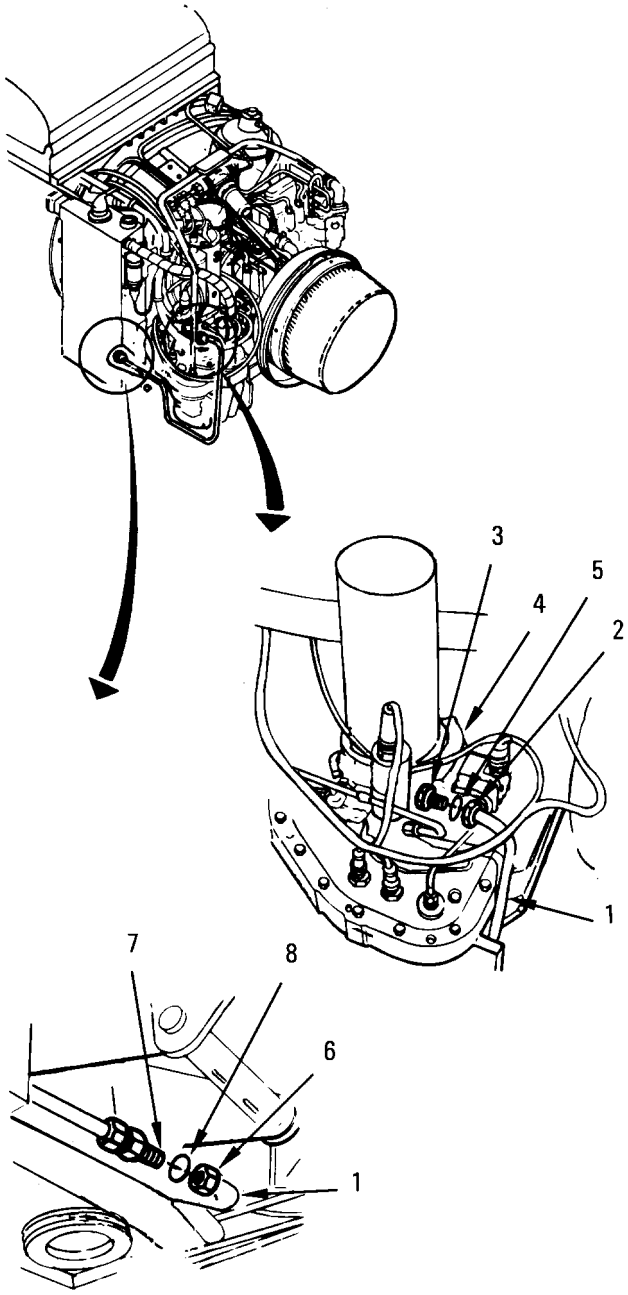
REFERENCES: TM 5-5420-232-10

REMOVAL:

1. REMOVE TUBE (1).
   a. Disconnect tube nut (2) from reducer (3) at engine oil pump (4). Remove compression sleeve (5).
   b. Disconnect tube nut (6) from tube nipple (7). Remove compression sleeve (8). Remove tube (1).
2. INSPECT TUBE (1) FOR DAMAGE. REPLACE AS REQUIRED.

INSTALLATION:

1. INSTALL TUBE (1).
   a. Put new sleeves (5, 8) in nuts (2, 6).
   b. Put tube (1) in place on pump (4) and nipple (7).
   c. Connect nuts (2, 6) to reducer (3) and nipple (7).
2. SERVICE OIL TANK (TM 5-5420-232-10).
3. GROUND HOP POWERPACK (PAGE 4-37).



End of Task

2w1580

TUBE ASSEMBLY (NO. 1 BEARING SCAVENGE) REPLACEMENT (Sheet 1 of 1)

TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)

SUPPLIES: Flared conical seal (Item 399, Appendix G) (2 required)

EQUIPMENT CONDITION: Screen assembly (engine air inlet) removed (page 5-116)

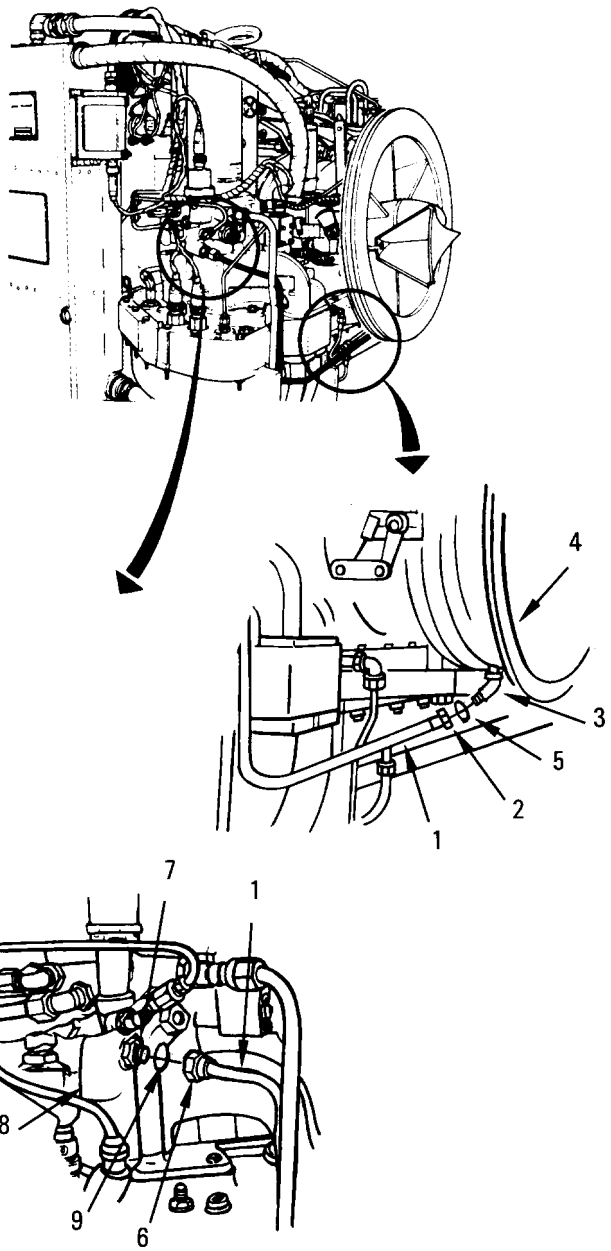
REFERENCES: TM 5-5420-232-10

REMOVAL:

1. REMOVE TUBE (1).
   a. Disconnect tube nut (2) from elbow (3) at inlet housing (4). Remove flared conical seal (5).
   b. Disconnect tube nut (6) from nipple (7) at engine oil pump (8). Remove flared conical seal (9). Remove tube (1).
2. INSPECT TUBE (1) FOR DAMAGE. REPLACE AS REQUIRED.

INSTALLATION:

1. INSTALL TUBE (1).
   a. Put new seals (5, 9) in nuts (2, 6).
   b. Put tube (1) in place at housing (4) and pump (8).
   c. Connect nut (2) to elbow (3) and nut (6) to nipple (7).
2. INSTALL SCREEN ASSEMBLY (ENGINE AIR INLET) (PAGE 5-117).
3. SERVICE OIL TANK (TM 5-5420-232-10).
4. GROUND HOP POWERPACK (PAGE 4-37).



End of Task 2w1581

SCAVENGE PUMP NOZZLE REPLACEMENT (Sheet 1 of 1)

TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)
Socket, 3/8-inch drive, 3/4-inch (Item 231, Appendix E)
Torque wrench, 0-600 in-lb (Item 332, Appendix E)

SUPPLIES: Packing with retainer (Item 200, Appendix G)
Nonelectric wire (Item 133, Appendix C)

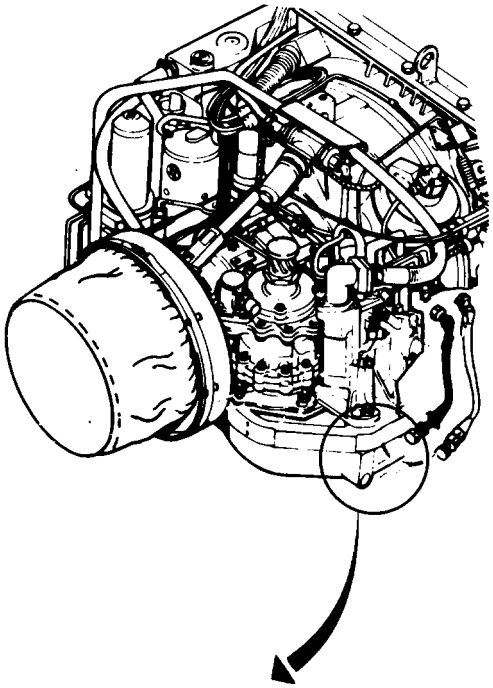
EQUIPMENT CONDITION: Powerpack removed (page 4-12)

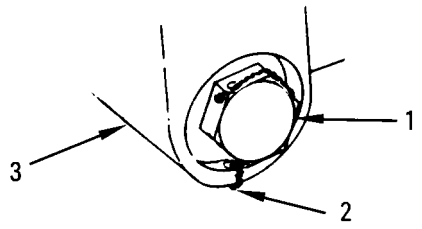
REMOVAL:

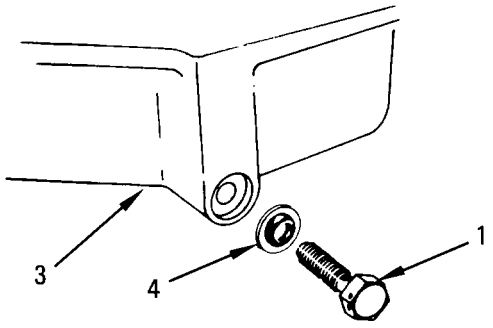
1. REMOVE NOZZLE (1).
   a. Cut and remove nonelectric (safety) wire (2) from nozzle (1).
   b. Remove nozzle (1) from accessory gearbox (3).
   c. Remove packing with retainer (4) from nozzle (1).
2. INSPECT PARTS FOR DAMAGE. REPLACE AS REQUIRED.

INSTALLATION:

1. INSTALL NOZZLE (1).
   a. Position new packing with retainer (4) flush under head of nozzle (1).
   b. Install nozzle (1) to gearbox (3).
2. TORQUE NOZZLE (1) BETWEEN 160-175 IN-LB (18-20 N•m).
3. INSTALL NEW WIRE (2) TO NOZZLE (1).
4. INSTALL POWERPACK (PAGE 4-24).







End of Task

2w4710

BEARING FEED TUBE ASSEMBLIES CLAMPS REPLACEMENT (Sheet 1 of 1)

TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)

SUPPLIES: Self-locking nut (Item 179, Appendix G) (2 required)

EQUIPMENT CONDITION: Powerpack removed (page 4-12)

REMOVAL:

1. REMOVE TWO SELF-LOCKING NUTS (1), SCREWS (2), AND CLAMPS (3, 4).
2. INSPECT PARTS FOR DAMAGE. REPLACE AS REQUIRED.

INSTALLATION:

1. INSTALL CLAMPS (3, 4).

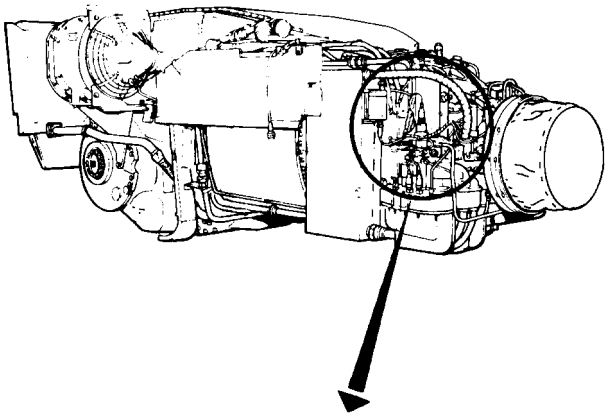
NOTE

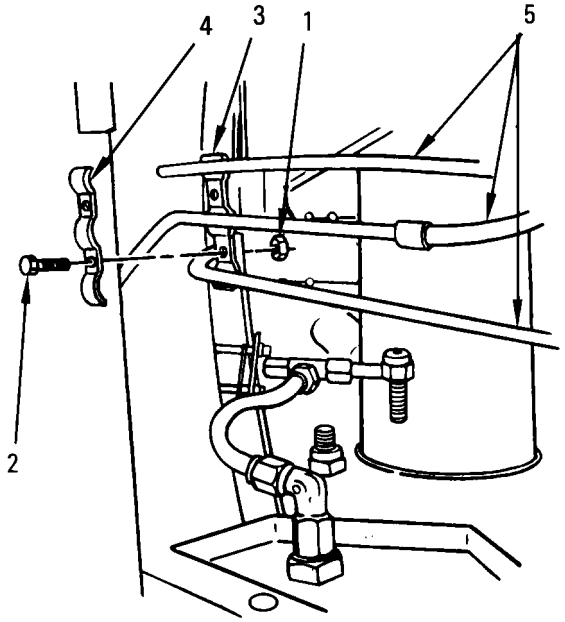
Be sure to match clamps (3, 4) with diameters of three tubes (5).

   a. Hold clamps (3, 4) against tubes (5). Screw two screws (2) in clamps (3, 4).

   b. Install two new nuts (1) on screws (2).

2. INSTALL POWERPACK (PAGE 4-24).





End of Task 2w1589

TUBE ASSEMBLY (NO. 1 BEARING FEED) REPLACEMENT (Sheet 1 of 1)

TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)

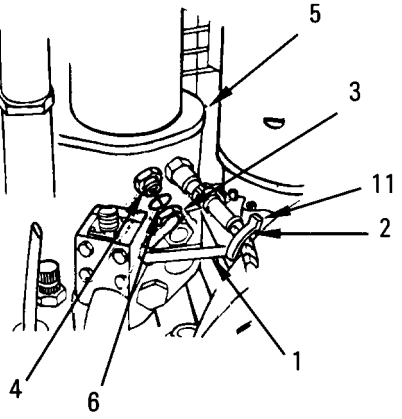
SUPPLIES: Electrical tiedown strap (Item 451, Appendix G)
Flared tube sleeve (Item 398, Appendix G) (2 required)

EQUIPMENT CONDITION: Powerpack removed (page 4-12)

REFERENCES: TM 5-5420-232-10

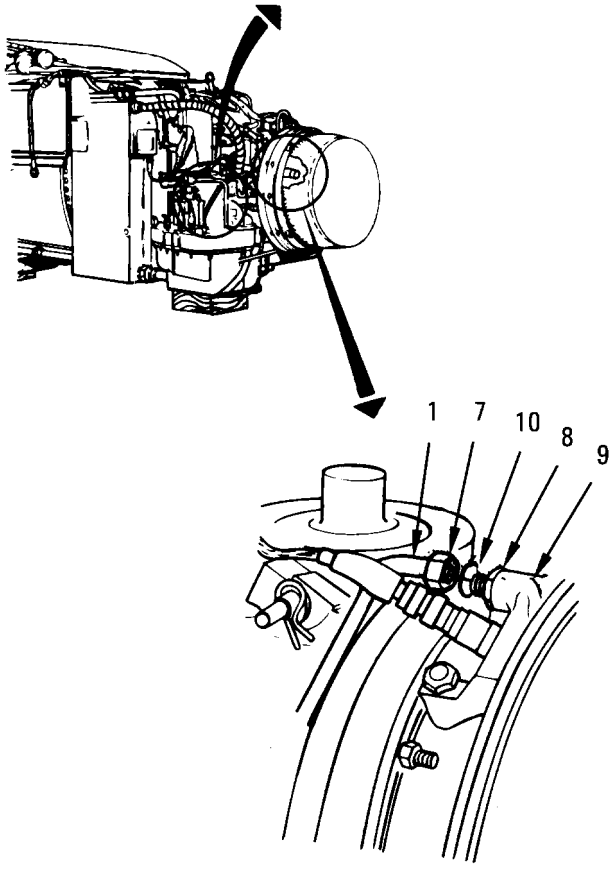
REMOVAL:

1. REMOVE TUBE (1).
   a. Cut off electrical tiedown strap (2).
   b. Unscrew tube nut (3) from nipple (4) on engine oil pump (5). Remove flared tube sleeve (6).
   c. Unscrew tube nut (7) from nipple (8) at top of inlet housing (9). Remove flared tube sleeve (10). Remove tube (1).
2. INSPECT TUBE (1) FOR DAMAGE. REPLACE AS REQUIRED.



INSTALLATION:

1. INSTALL TUBE (1).
   a. Put new sleeves (6, 10) in nuts (3, 7).
   b. Put tube (1) in place at pump (5) and housing (9).
   c. Connect nut (7) to nipple (8) and nut (3) to nipple (4).
   d. Put new strap (2) around tube (1). Pull tight and cut off extra length of strap (2) just above connection (11).
2. SERVICE OIL TANK (TM 5-5420-232-10).
3. GROUND HOP POWERPACK (PAGE 4-37).



End of Task

2w1590

TUBE ASSEMBLY (OIL PUMP RETURN TO COOLER - FORWARD) REPLACEMENT (Sheet 1 of 1)

TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)
Open end wrench, 1-1/2 inch and 1-3/4 inch (Item 304, Appendix E)
Open end wrench, 1-7/16 inch and 1-5/8 inch (Item 308, Appendix E)

SUPPLIES: Electrical tiedown strap (Item 451, Appendix G) (as required)
Flared conical seal (Item 401, Appendix G)

EQUIPMENT CONDITION: Powerpack removed (page 4-12)

REMOVAL:

1. REMOVE TUBE (1) AND FILTER ELEMENT (2).
   a. Unscrew tube nut (3) from nipple (4). Remove flared conical seal (5).
   b. Unscrew tube nut (6) from nipple (7).

NOTE

Cut off any tiedown straps as needed to remove tube (1).

   c. Remove tube (1) from oil pump assembly (8).
   d. Remove element (2) from nipple (7).
2. INSPECT PARTS FOR DAMAGE. REPLACE AS REQUIRED.

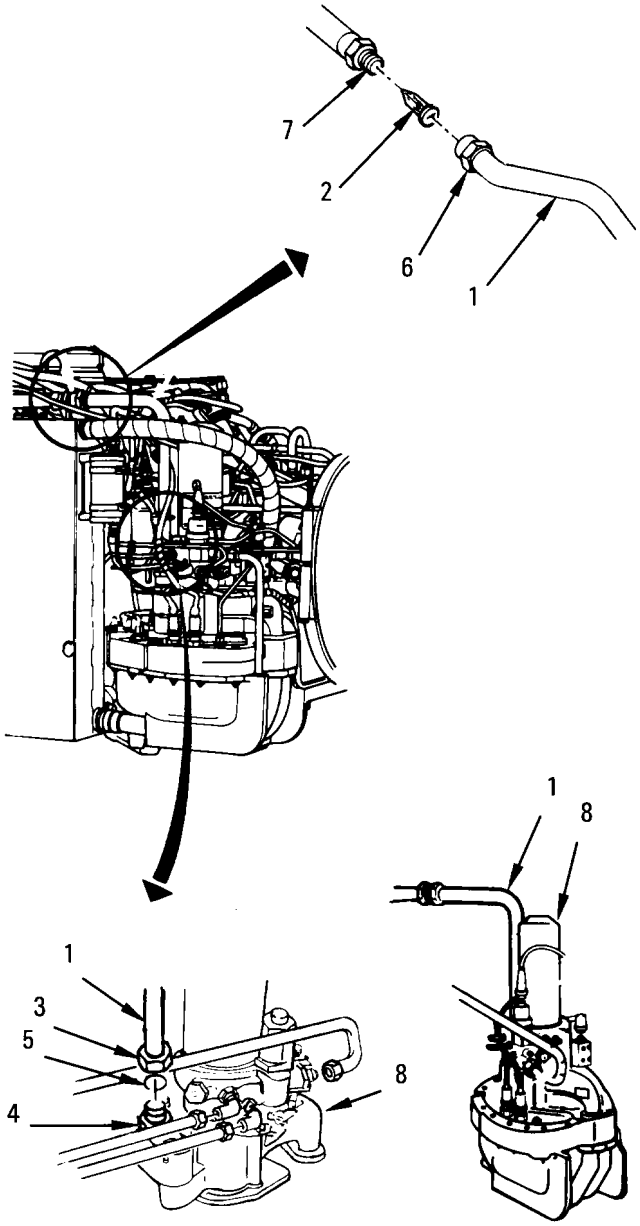
INSTALLATION:

1. INSTALL TUBE (1).
   a. Put element (2) in nipple (7).
   b. Put new seal (5) in nut (3).
   c. Put tube (1) in place on two nipples (4, 7).
   d. Connect nut (6) to nipple (7).
   e. Connect nut (3) to nipple (4).

NOTE

If any straps were cut off during removal, install new straps on tube (1).

2. INSTALL POWERPACK (PAGE 4-24).



End of Task 2w1591

CHAPTER 6

AIR CLEANER MAINTENANCE

CHAPTER INDEX

AIR CLEANER ASSEMBLY PLATE AND RUBBER STRIP SEALS REPLACEMENT (Sheet 1 of 3)

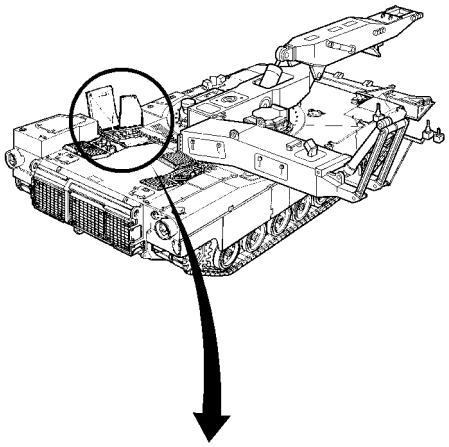
TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)
Extension, 3/8-inch drive, 6-inch (Item 77, Appendix E)
Ratchet handle, 3/8-inch drive (Item 109, Appendix E)
Socket, 3/8-inch drive, 7/16-inch (Item 234, Appendix E)

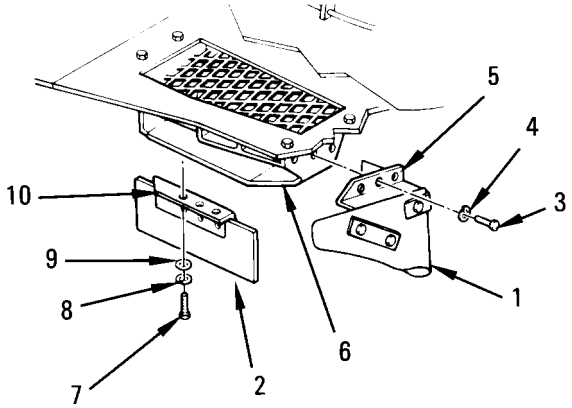
SUPPLIES: Lockwasher (Item 117, Appendix G) (14 required)

EQUIPMENT CONDITION: Engine access cover removed (TM 5-5420-232-10)
Precleaner-baffle removed (page 6-7)

REMOVAL:

1. REMOVE SEALS (1, 2)
   a. Remove three screws (3) and lockwashers (4) from side seal plate (5) and inlet airbox (6).
   b. Remove three screws (7), lockwashers (8), and washers (9) from front seal plate (10) and box (6).
   c. Remove seals (1, 2).
2. INSPECT BOX (6) FOR CRACKS, BENDS, OR BROKEN WELDS. IF DAMAGED, REPLACE INLET AIR BOX (PAGE 6-6) BEFORE SEALS (1, 2) ARE INSTALLED.





Go on to Sheet 2

habw4092

PRECLEANER-BAFFLE BOTTOM GASKET REPLACEMENT (P/N 12321626) (Sheet 1 of 1)

TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)
Chemical and oil protective gloves (Item 90, Appendix E)
Industrial goggles (Item 92, Appendix E)
Pocket knife (Item 128, Appendix E)
Wire brush (Item 24, Appendix E)

SUPPLIES: Adhesive (Item 12, Appendix C)
Dry cleaning solvent (Item 48, Appendix C)
Gasket (Item 44, Appendix G)
Wiping rag (Item 94, Appendix C)

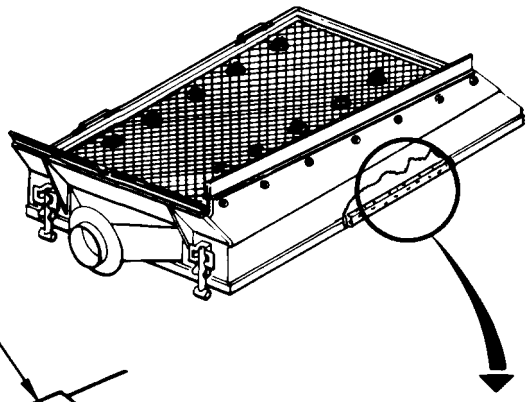
EQUIPMENT CONDITION: Precleaner-baffle cleaned (page 6-13)

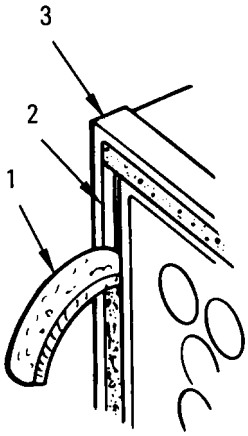
REMOVAL:

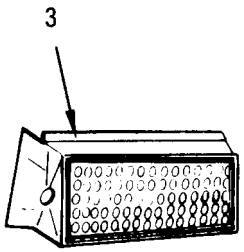
WARNING

REMOVE GASKET (1) AND CLEAN GROOVE (2).

a. Place precleaner-baffle (3) upside down on clean surface and peel off bottom gasket (1).
b. Clean inside of groove (2) with rag, solvent, and wire brush.







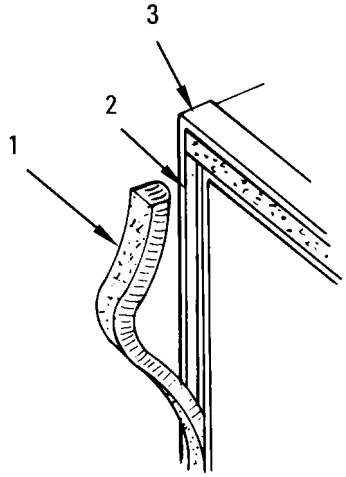
INSTALLATION:

WARNING

CAUTION

Do not twist gasket (1) as you put it in groove (2). Gasket (1) will not be airtight if twisted. Any air leak will let dirt in precleaner-baffle (3) and clog air cleaner assembly element strainers.

1. INSTALL NEW GASKET (1).
   a. Spread adhesive in groove (2). Put rounded side of gasket (1) in groove (2).
   b. Press gasket (1) in groove (2) snugly against adhesive. Allow gasket (1) to dry in place.
2. INSTALL PRECLEANER-BAFFLE (PAGE 6-11).



End of Task

2w1646

PRECLEANER-BAFFLE UPPER RUBBER STRIP SEALS REPLACEMENT (Sheet 1 of 2)

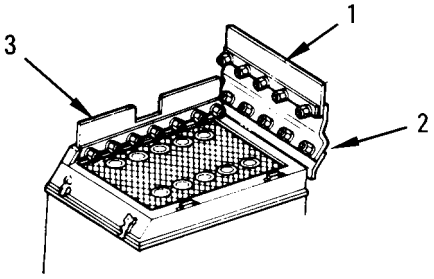
TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)

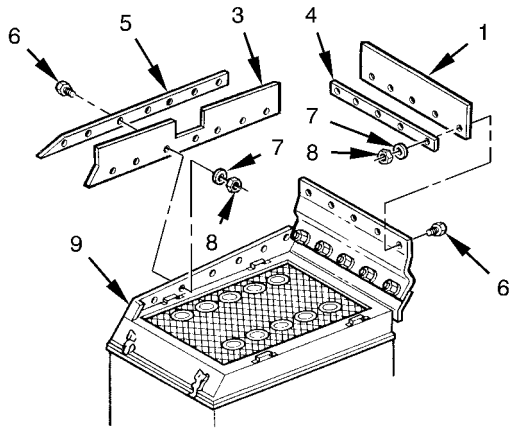
SUPPLIES: Lockwasher (Item 117, Appendix G) (17 required)

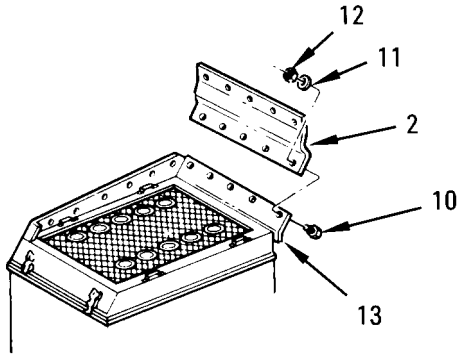
EQUIPMENT CONDITION: Both precleaner doors opened (TM 5-5420-232-10)
Top deck left grille doors opened (TM 5-5420-232-10)
Precleaner-baffle removed (page 6-7)

REMOVAL:

1. REMOVE SEAL (1), BRACKET (2), NONMETALLIC SEAL (3), AND RETAINING STRIPS (4, 5).
   a. Remove 12 screws (6), lockwashers (7), and nuts (8) from strips (4, 5), seal (3), seal (1), baffle (9), and bracket (2).
   b. Remove five screws (10), lockwashers (11), and nuts (12) from bracket (2) and baffle (13). Remove bracket (2) from baffle (13).
2. INSPECT STRIPS (4, 5), SEALS (1, 3), AND BRACKET (2) FOR DAMAGE. REPLACE AS REQUIRED.
3. INSPECT BAFFLES (9, 13) FOR DAMAGE. REPLACE DAMAGED PRECLEANER-BAFFLE (PAGE 6-7).







Go on to Sheet 2

2w1647

PULSE JET SYSTEM (PJS) AIR CLEANER CLAMP ASSEMBLY REPLACEMENT (Sheet 4 of 4)

4. REMOVE SHIMS (1) AND MEASURE SHIM (1) REQUIREMENT.

   a. Remove four nuts (2) from studs (3). Remove clamp (4) and shims (1) from four studs (3). Put clamp (4) back on studs (3) and hold in place.

   b. Push lever (5) down until roller (6) reaches its farthest point away from plate (7). Hold lever (5) in this position and push roller (6) as far forward as possible.

   c. Hold one end of gage (8) in place against plenum (9) and other end at roller (6). Make sure gage (8) is straight between plenum (9) and roller (6).

   d. Measure and record distance between end of gage (8) and roller (6). Write down this measurement.

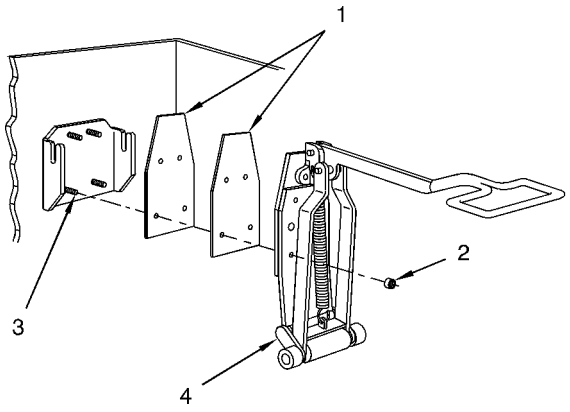
5. INSTALL SHIMS (1) AND CLAMP (4).

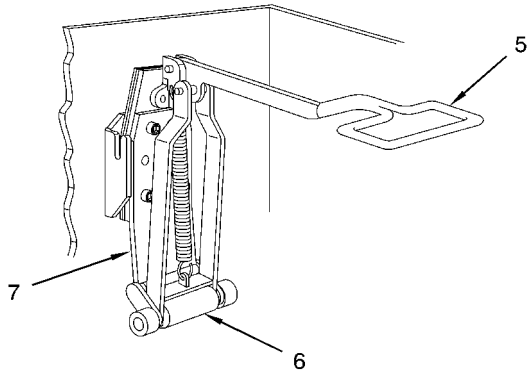
   a. Take clamp (4) off studs (3). Make a stack of shims (1) the same thickness as measured in step 4. Measure thickness.

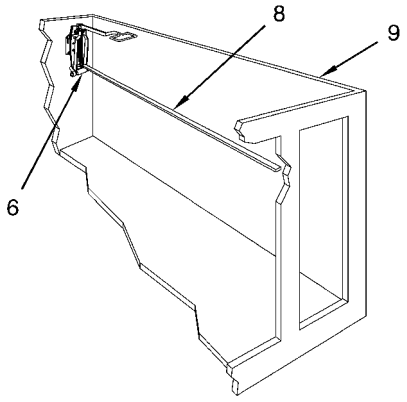
   b. Install shims (1) and clamp (4) on studs (3).

   c. Install four nuts (2) on studs (3) and check adjustment by repeating step 2.

6. INSTALL PULSE JET SYSTEM (PJS) AIR CLEANER ASSEMBLY INTAKE FILTER ELEMENTS AND DUCTS (PAGE 6-24).







End of Task

2w7007

GAIN ACCESS TO BOTTOM OF PLENUM AND AIR BOX (Sheet 1 of 6)

TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)
Hoist, 500-pound capacity (Item 112, Appendix E)
Metal pail, 10-quart (Item 153, Appendix E)
Webbing strap (Item 261, Appendix E)

SUPPLIES: Wood block (Item 140, Appendix C) (2 required)
Wood block (Item 148, Appendix C)

PERSONNEL: Three

EQUIPMENT CONDITION: Powerpack removed (page 4-12)
System hydraulic pressure reduced to zero (TM 5-5420-232-10)
Parking brake rear control assemblies brace mounting bracket removed (page 12-33)
Tube assembly (prioritization valve to sponson) removed (page 28-99)
Pulse Jet System (PJS) air cleaner assembly intake filter elements and ducts removed (page 6-21)
Branched wiring harness 2W701-9 removed (page 9-327)
Pulse Jet System (PJS) dampening port assembly removed (page 6-97)
Pulse Jet System (PJS) check valve, flex hose, and tube removed (page 6-92)

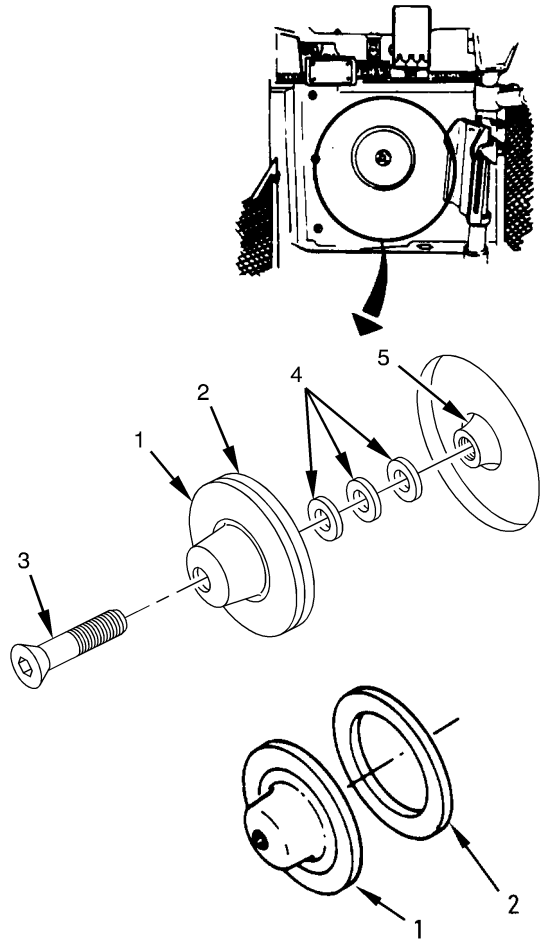
GAIN ACCESS:

1. REMOVE PLENUM BULKHEAD SUPPORT (1) AND GASKET (2).

   a. Close both precleaner doors (TM 5-5420-232-10).

   b. Remove screw (3), support (1) with gasket (2), and all washers (4) from plenum boss (5).

   c. Scrape off gasket (2) from support (1).

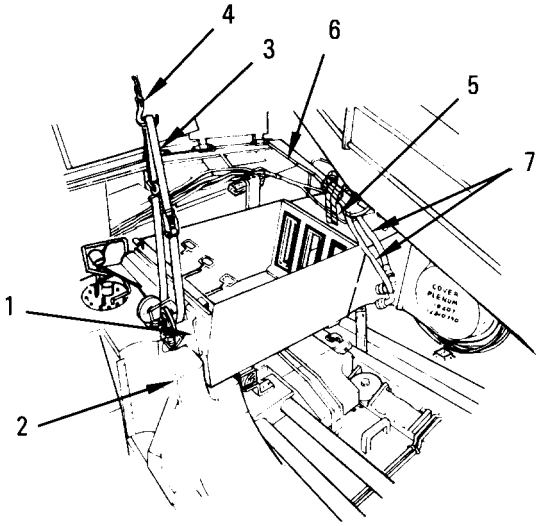


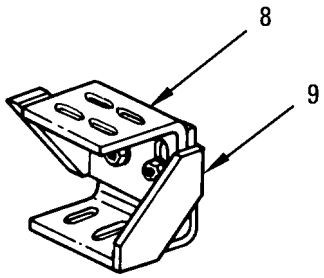
Go on to Sheet 2

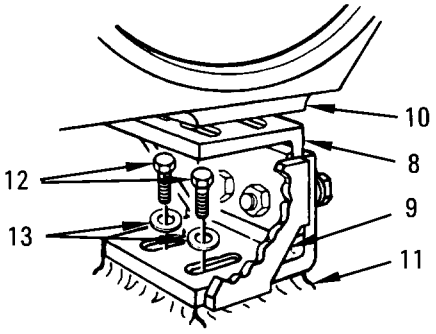
2w1661

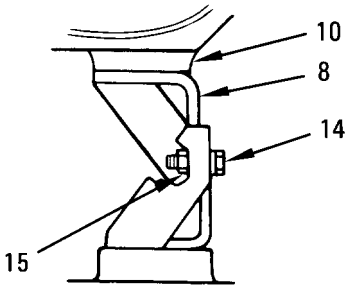
PLENUM AND AIR BOX AND MOUNTING BRACKETS REPLACEMENT (Sheet 13 of 14)

15. POSITION BRACKET (1) ON FUEL TANK (2).
    a. Operate hoist to slowly lower bracket (1) in place on fuel tank (2).
    b. Remove strap (3) from hoist hook (4) and bracket (1).
    c. Move hoist hook (4) away from engine compartment.
16. REMOVE ROPE (5) FROM AROUND OPENING (6) AND TWO HOSES (7).
17. INSTALL FORWARD PLENUM BRACKETS (8, 9).
    a. Check that forward bracket (8) is all the way down on bracket (9). Position brackets (8, 9) under pad (10) and on pad (11).
    b. Aline holes in bracket (9) with holes in pad (11). Install two screws (12) and washers (13) in bracket (9) and pad (11).
    c. Pull bracket (8) up toward pad (10) and tighten two screws (14) and nuts (15).
18. INSTALL PULSE JET SYSTEM (PJS) CHECK VALVE, FLEX HOSE AND TUBE (PAGE 6-93).
19. INSTALL PULSE JET SYSTEM (PJS) DAMPENING PORT (PAGE 6-97).
20. INSTALL BRANCHED WIRING HARNESS 2W701-9 (PAGE 9-327).
21. INSTALL PULSE JET SYSTEM (PJS) AIR CLEANER ASSEMBLY INTAKE FILTER ELEMENTS AND DUCTS (PAGE 6-24).
22. CLOSE ACCESS TO BOTTOM OF PLENUM AND AIR BOX (PAGE 6-54).









Go on to Sheet 14

2w1678

PLENUM AND AIR BOX AND MOUNTING BRACKETS REPLACEMENT (Sheet 14 of 14)

23. INSTALL PARKING BRAKE REAR CONTROL ASSEMBLIES BRACE MOUNTING BRACKET (PAGE 12-33).

24. INSTALL POWERPACK (PAGE 4-24).

25. FILL HYDRAULIC RESERVOIR (TM 5-5420-232-10).

26. PRESSURIZE AND BLEED HYDRAULIC SYSTEM AND CHECK FOR LEAKS (F-18).

27. REFUEL TANKS (TM 5-5420-232-10).

PLENUM AND AIR BOX EXTERNAL RUBBER SEALS REPLACEMENT (Sheet 1 of 2)

TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)
Wire brush (Item 24, Appendix E)
Industrial goggles (Item 92, Appendix E)

SUPPLIES: Acid swabbing brush (Item 26, Appendix C)
Adhesive (Item 5, Appendix C)
Pressure sensitive tape (Item 122, Appendix C)
Rubber channel seal (Item 408, Appendix G) (as required)
Rubber strip seal (Item 410, Appendix G) (as required)
Rubber strip seal (Item 411, Appendix G) (as required)
Wiping rag (Item 94, Appendix C)
Writing pencil (Item 85, Appendix C)

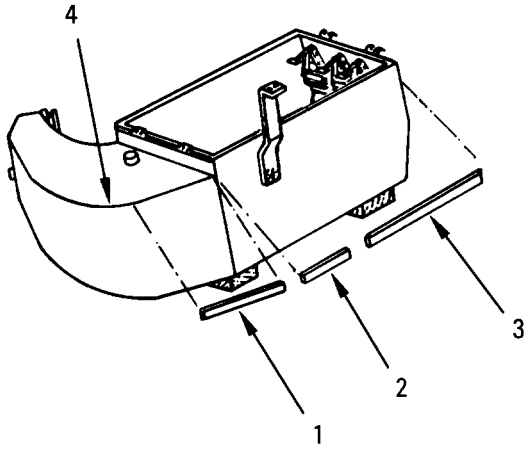
EQUIPMENT CONDITION: Plenum and air box and mounting brackets removed (page 6-37)

REMOVAL:

REMOVE RUBBER STRIP SEAL (1 OR 2) OR RUBBER CHANNEL SEAL (3).

a. Scrape off damaged seals (1, 2, or 3).

b. Clean seal area of plenum (4) to remove all dirt, oil, and bits of old seal.



Go on to Sheet 2

2w1679

PLENUM AND AIR BOX INLET RUBBER STRIP SEALS REPLACEMENT (Sheet 1 of 1)

TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)
Wire brush (Item 24, Appendix E)

SUPPLIES: Rubber strip seal (Item 419, Appendix G) (as required)
Wiping rag (Item 94, Appendix C)

EQUIPMENT CONDITION: Pulse Jet System (PJS) air cleaner assembly intake filter elements and ducts removed (page 6-21)

NOTE

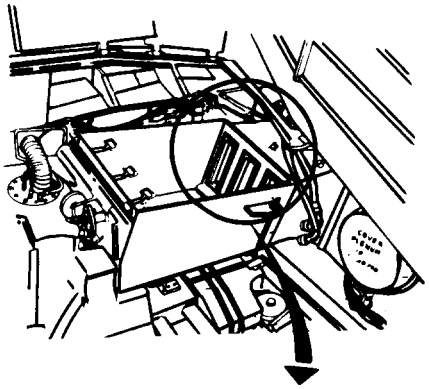
Use this task to replace any plenum inlet rubber strip seal (1).

REMOVAL:

REMOVE SEAL (1).

a. Pry out corner of bad seal (1). Pull seal (1) out of plenum groove (2).

b. Clean dirt and pieces of old seal (1) from groove (2). Clean groove (2) and inside of air intake plenum (3) with damp rag.



INSTALLATION:

CAUTION

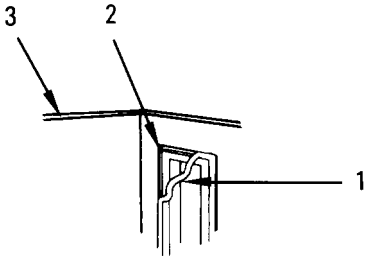
Do not twist new seal (1) as it is put in groove (2). If seal (1) is twisted, dirt or dust can enter engine and cause severe damage.

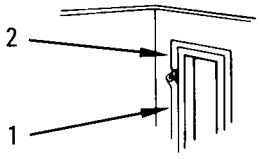
1. INSTALL NEW SEAL (1).

   a. Install new seal (1) in groove (2) with rough side of seal (1) in groove (2).

   b. Press seal (1) in groove (2) with fingers to seat seal (1).

2. INSTALL PULSE JET SYSTEM (PJS) AIR CLEANER ASSEMBLY INTAKE FILTER ELEMENTS AND DUCTS (PAGE 6-24).





End of Task

2w1682

CLOSE ACCESS TO BOTTOM OF PLENUM AND AIR BOX (Sheet 1 of 13)

TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)
C clamp, 4-inch (Item 29, Appendix E)
Combination square, 12-inch (Item 258, Appendix E)
Crowbar (Item 40, Appendix E)
Hoist, 500-pound capacity (Item 112, Appendix E)
Machinist's rule, 12-inch (Item 191, Appendix E)
Measuring tape, 50-foot (Item 266, Appendix E)
Webbing strap (Item 261, Appendix E)

SUPPLIES: Acid swabbing brush (Item 26, Appendix C)
Adhesive (Item 13, Appendix C)
Adhesive (Item 12, Appendix C)
Adhesive (Item 1, Appendix C)
Cap screw, socket head (Item 32, Appendix G) (as required)
Cap screw, socket head (Item 33, Appendix G) (as required)
Cap screw, socket head (Item 34, Appendix G) (as required)
Cap screw, socket head (Item 554, Appendix G) (as required)
Electrical tiedown strap (Item 451, Appendix G)
Gasket (Item 61, Appendix G)
Lockwasher (Item 117, Appendix G)
Packing with retainer (Item 197, Appendix G)
Pressure sensitive tape (Item 120, Appendix C)
Nonelectric wire (Item 133, Appendix C)
Washer (Item 470, Appendix G) (as required)
Wiping rag (Item 94, Appendix C)
Wood block (Item 147, Appendix C)
Writing pencil (Item 85, Appendix C)

PERSONNEL: Three

EQUIPMENT CONDITION: Access gained to bottom of plenum and air box (page 6-32)

REFERENCES: TM 5-5420-232-10

Go on to Sheet 2

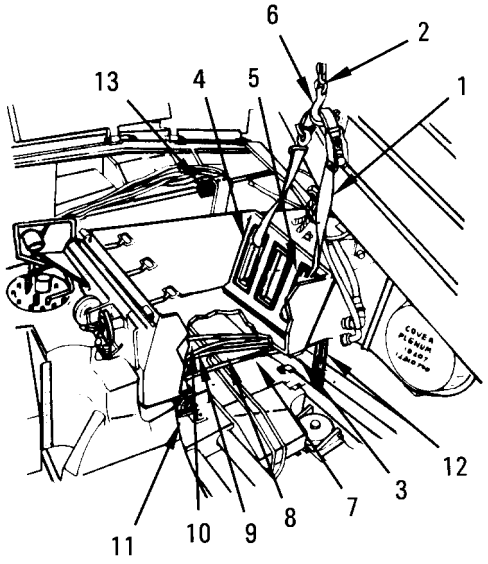
CLOSE ACCESS TO BOTTOM OF PLENUM AND AIR BOX (Sheet 2 of 13)

CLOSE ACCESS:

WARNING

Inspect webbing strap (1) for cuts, breaks, or wear before and during hoisting. If bad, replace it. Strap (1) can break and cause injury or death.

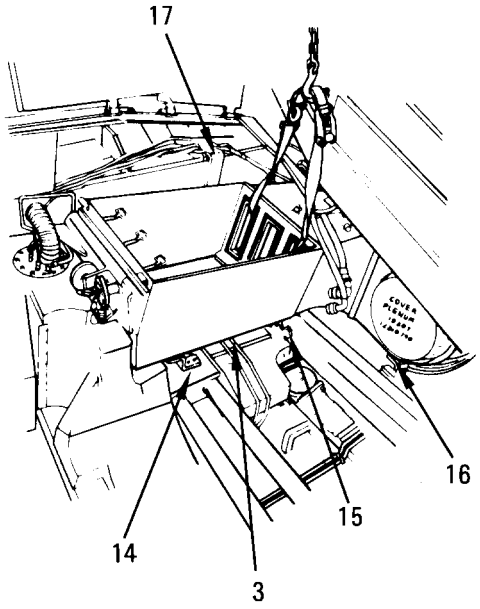
1. ASSEMBLE HOIST (2) AND STRAP (1) TO LIFT PLENUM AND AIR BOX (3).
   a. Lace strap (1) through two plenum inlets (4, 5).
   b. Operate hoist to move hoist hook (6) over strap (1) and plenum (3). Put strap (1) on hoist hook (6).



CAUTION

Control assemblies (7 thru 10) are mounted to underside of plenum (3) and can be damaged if stretched or pinched. Do not raise plenum (3) to point where control assemblies (7 thru 10) are stretched. Never rest plenum (3) on control assemblies (7 thru 10).

2. REMOVE WOOD BLOCKS (11, 12, 13) AND LOWER PLENUM (3) ONTO ANGLE BRACKETS (14, 15, 16).
   a. Operate hoist to slowly raise plenum (3) as needed, to remove wood blocks (11, 12, 13) as other soldier guides plenum (3). Do not stretch control assemblies (7 thru 10).
   b. With plenum (3) raised, remove wood blocks (11, 12, 13).
   c. Operate hoist to slowly lower plenum (3) in place on angle brackets (14, 15, 16) and mounting brackets (17) as other soldier guides plenum (3) in place.

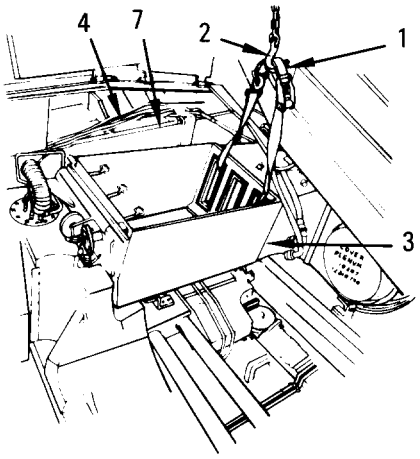


Go on to Sheet 3

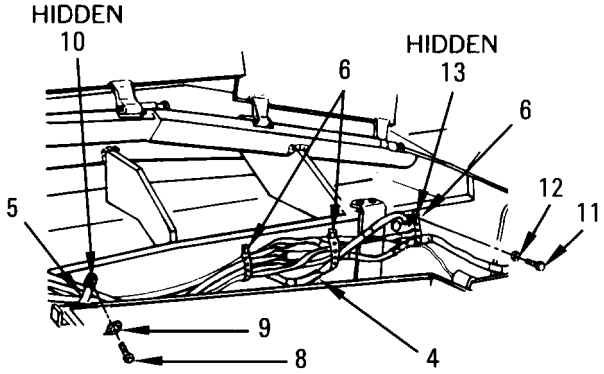
2w1683

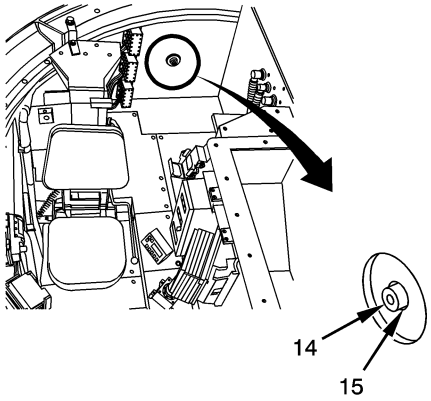
CLOSE ACCESS TO BOTTOM OF PLENUM AND AIR BOX (Sheet 3 of 13)

3. REMOVE STRAP (1) FROM HOIST HOOK (2) AND PLENUM (3). MOVE HOIST HOOK (2) AWAY FROM ENGINE COMPARTMENT.



4. REPOSITION HARNESS BUNDLE (4) AND INSTALL LOOP CLAMP (5) AND THREE NEW ELECTRICAL TIEDOWN STRAPS (6).
   a. Take bundle (4) off sponson (7). Install straps (6) and one clamp (5) in place around bundle (4).
   b. Install short screw (8) and new lockwasher (9) in clamp (5) and boss (10) on engine compartment wall.
   c. Install three screws (11) and washers (12) in straps (6) and bosses (13) on engine compartment wall.
5. ALINE PLENUM BOSS (14) WITH HOLE (15) IN BULKHEAD, AS NEEDED.
   a. Close both precleaner doors (TM 5-5420-232-10).
   b. Move plenum (3), as needed, to aline boss (14) with hole (15).
   c. Open both precleaner doors (TM 5-5420-232-10).



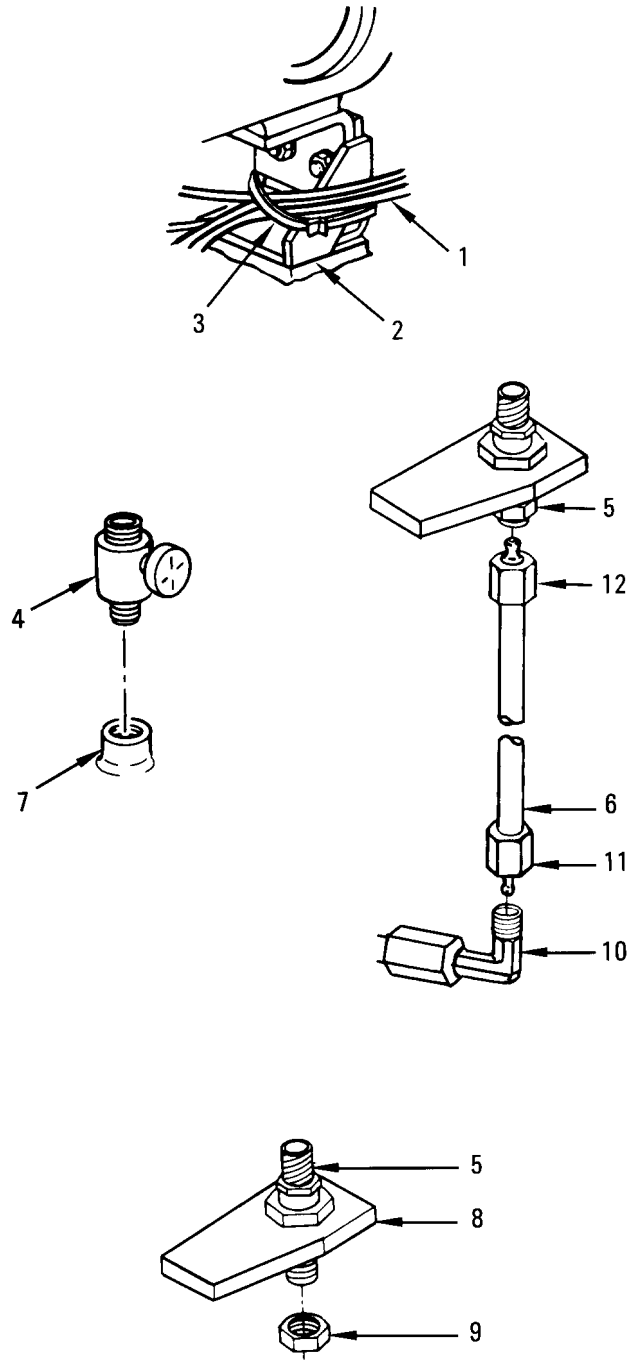


Go on to Sheet 4

2w1684

CLOSE ACCESS TO BOTTOM OF PLENUM AND AIR BOX (Sheet 10 of 13)

20. POSITION AND SECURE HARNESS BUNDLE (1).
    a. Position bundle (1) against bracket (2).
    b. Install new strap (3) around bundle (1) and bracket (2).
21. INSTALL PRESSURE SWITCH 2S152 (4), COUPLING ASSEMBLY HALF (5), AND TUBE ASSEMBLY (6).
    a. Install switch (4) to plenum boss (7).
    b. Put coupling half (5) in bracket (8). Install tube fitting locknut (9) on coupling half (5).
    c. Put tube assembly (6) in place on coupling half (5) and tube elbow (10). Connect tube nuts (11, 12).



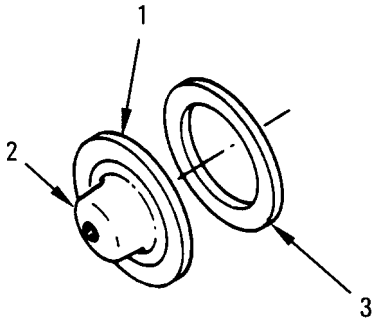
Go on to Sheet 11

2w1691

CLOSE ACCESS TO BOTTOM OF PLENUM AND AIR BOX (Sheet 11 of 13)

WARNING

22. APPLY ADHESIVE (ITEM 12, APPENDIX C) ON GASKET MATING SURFACE (1) OF SUPPORT (2) AND ON ONE SIDE OF NEW GASKET (3). PRESS GASKET (3) AGAINST GASKET MATING SURFACE (1) AND LET DRY.

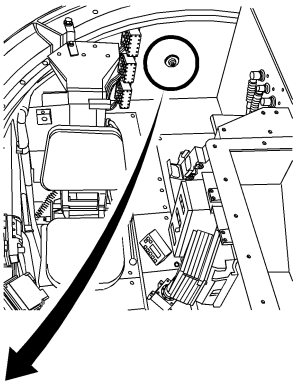


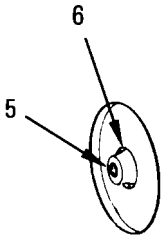
23. CLOSE BOTH PRECLEANER DOORS (TM 5-5420-232-10).

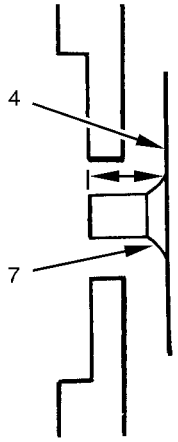
24. MEASURE PLENUM (4) TO BULKHEAD AND DETERMINE NUMBER OF NEW WASHERS NEEDED AS SHIMS.

    a. Put 6-inch rule through hole (5) in bulkhead, between plenum boss (6) and hole (5). Put end of rule against plenum (4). Make sure rule is against plenum (4) and not plenum boss weld (7).

    b. Measure from plenum (4) to turret side of bulkhead with rule.







Go on to Sheet 12

2w1692

CLOSE ACCESS TO BOTTOM OF PLENUM AND AIR BOX (Sheet 12 of 13)

NOTE

Length of screw (1) is measured from end of screw (1) to top of screw head (2).

c. Find measurement made in step b in first column of table, and follow the same line across the table. The second column shows the number of washers (3) needed, and the third column shows the length of screw (1) needed.

WARNING

25. APPLY ADHESIVE (ITEM 13, APPENDIX C) TO SIDE OF GASKET (4) THAT GOES AGAINST BULKHEAD.

26. INSTALL SUPPORT (5).

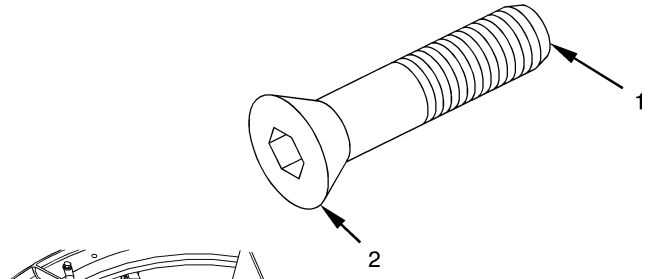
a. Make sure screw (1) is correct length, as shown in table.

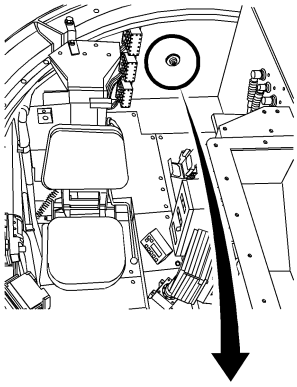
b. Apply adhesive (Item 1, Appendix C) to threads of screw (1) and put screw (1) in support (5). Put correct number of washers (3), as shown in table, on screw (1).

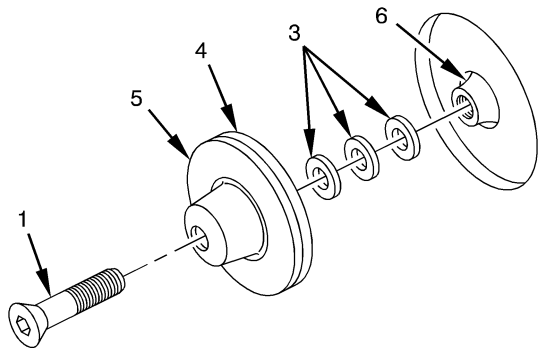
c. Install screw (1), support (5), gasket (4), and washers (3) to plenum boss (6).

Table 6 – 1. Plenum Support Washers and Screw Requirements

Measurement Between Plenum and Bulkhead	Number of Washers	Length of Screws
1/4 – inch	0	1 inch
11/32 – inch	1	1 inch
7/16 – inch	2	1 inch
17/32 – inch	3	1 – 1/4 inch
5/8 – inch	4	1 – 1/4 inch
23/32 – inch	5	1 – 1/2 inch
13/16 – inch	6	1 – 1/2 inch
7/8 – inch	7	1 – 1/2 inch
31/32 – inch	8	1 – 3/4 inch
1–1/16 inch	9	1 – 3/4 inch
1–5/32 inch	10	1 – 3/4 inch







Go on to Sheet 13

2w3574

CLOSE ACCESS TO BOTTOM OF PLENUM AND AIR BOX (Sheet 13 of 13)

27. INSTALL PULSE JET SYSTEM (PJS) CHECK VALVE FLEX HOSE AND TUBE (PAGE 6-93).
28. INSTALL PULSE JET SYSTEM (PJS) DAMPENING PORT (PAGE 6-97).
29. INSTALL BRANCHED WIRING HARNESS 2W701-9 (PAGE 9-327).
30. INSTALL PULSE JET SYSTEM (PJS) AIR CLEANER ASSEMBLY INTAKE FILTER ELEMENTS AND DUCTS (PAGE 6-24).
31. OPEN BOTH PRECLEANER DOORS (TM 5-5420-232-10).
32. INSTALL TUBE ASSEMBLY (PRIORITIZATION VALVE TO SPONSON) (PAGE 28-99).
33. INSTALL PARKING BRAKE REAR CONTROL ASSEMBLIES BRACE MOUNTING BRACKET (PAGE 12-29).
34. INSTALL POWERPACK (PAGE 4-24).
35. FILL HYDRAULIC RESERVOIR (TM 5-5420-232-10).
36. PRESSURIZE AND BLEED HYDRAULIC SYSTEM AND CHECK FOR LEAKS (TM 5-5420-232-10).
37. REFUEL TANKS (TM 5-5420-232-10).

End of Task

PULSE JET SYSTEM (PJS) TUBEAXIAL FAN REPLACEMENT (Sheet 5 of 6)

4. ATTACH SHAFT (1) TO ADAPTER HALF (2).

   a. Aline disc packs (3) on shaft (1) with adapter (2) of fan (4).

CAUTION

Torque of disc packs (3) to adapter (2) is critical. If torque is not applied properly, damage to equipment could happen.

   b. Apply sealing compound to threads of three screws (5). Install screws (5) through disc packs (3) and adapter (2). Install new self locking nuts (6).

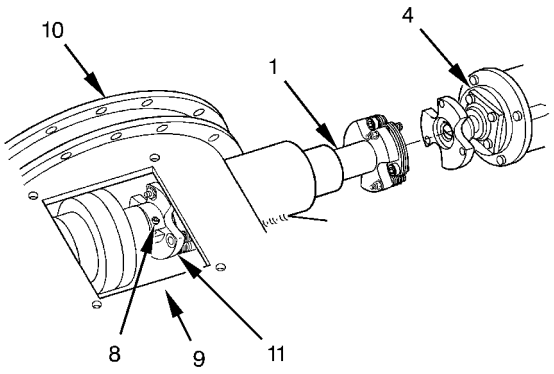
5. TORQUE THREE SCREWS (5) AND NUTS (6) BETWEEN 48-55 LB-IN (55-63 KG CM). TORQUE THREE SCREWS (7) BETWEEN 70-90 LB-FT (95-122 N•m). ALTERNATELY TORQUE TWO SCREWS (8) IN INCREMENTS OF 50 LB-IN (56 KG CM) TO BETWEEN 204-228 LB-IN (23-25 N•m).

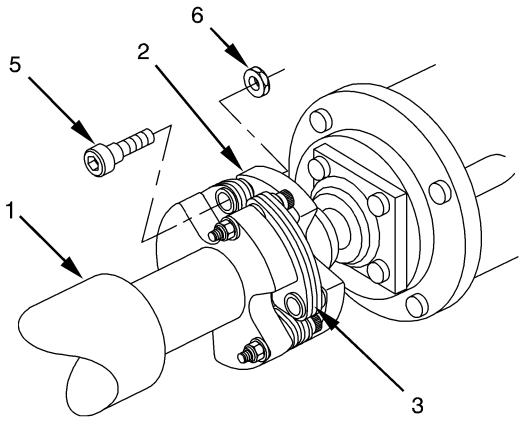
   a. Work through hole (9) in fan duct (10). Torque screws (5) and nuts (6) between 48-55 lb-in (55-63 kg cm).

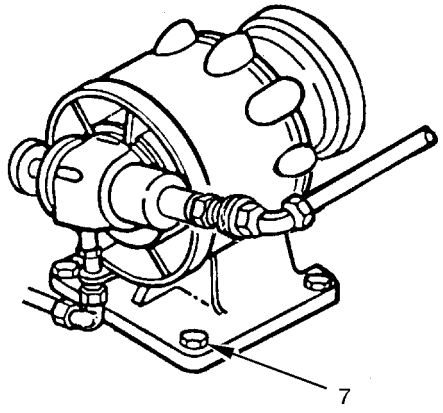
   b. Remove two screws (8) from adapter (11) and make sure adapter (11) is seated on shaft (1).

   c. Torque three screws (7) between 70-90 lb-ft (95-122 N•m).

   d. Apply sealing compound to threads of two screws (8). Install screws (8) in adapter (11) and alternately torque screws (8) in increments of 50 lb-in (56 kg cm) to between 204-228 lb-in (23-25 N•m).





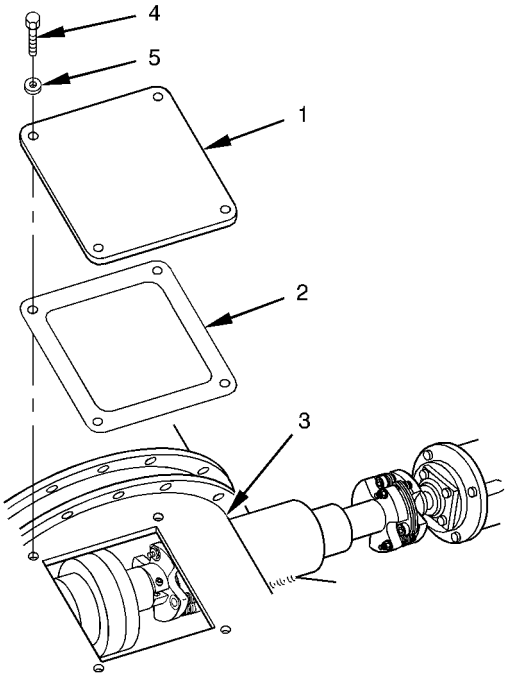


Go on to Sheet 6

3w5162

PULSE JET SYSTEM (PJS) TUBEAXIAL FAN REPLACEMENT (Sheet 6 of 6)

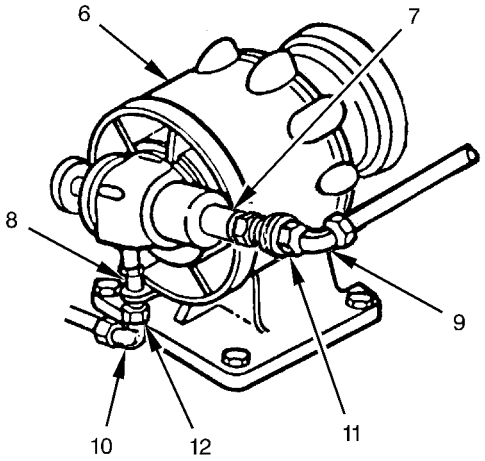
6. INSTALL COVER (1) AND GASKET (2) ON DUCT (3). INSTALL FOUR SCREWS (4) AND WASHERS (5).



WARNING

Keep hands away from moving parts of fan (6). Fan (6) can cause severe injury.

7. CHECK ADAPTERS (7, 8) FOR LEAKS. TIGHTEN AS NEEDED.
   a. Have a second soldier start engine and run engine at idle speed (TM 5-5420-232-10).
   b. Check small elbow (9) and small adapter (7) for oil leaks. Check large elbow (10) and large adapter (8) for oil leaks. Tighten any leaking elbow nut (11, 12) or adapter (7, 8).
8. INSTALL PRECLEANER AIR EXHAUST HOSE ASSEMBLY (PAGE 6-77).
9. INSTALL SCAVENGER DUCT (PAGE 6-68).



End of Task 2w6783

FUEL SYSTEM PURGING (Sheet 2 of 5)

d. Disconnect connector 2W144-10 P2 (1) from connector 2W103-10 J4 (2).

e. Disconnect quick-disconnect (3) from nipple (4).

f. Remove male end from hose assembly (5). Connect hose assembly (5) to nipple (4) and insert other end of hose (5) in left rear fuel inlet (6).

g. Disconnect main engine fuel line quick-disconnect (7).

2. PRESS MASTER POWER PUSHBUTTON (8) ON DRIVER'S INTEGRATED DISPLAY (DID) (9) TO ON.

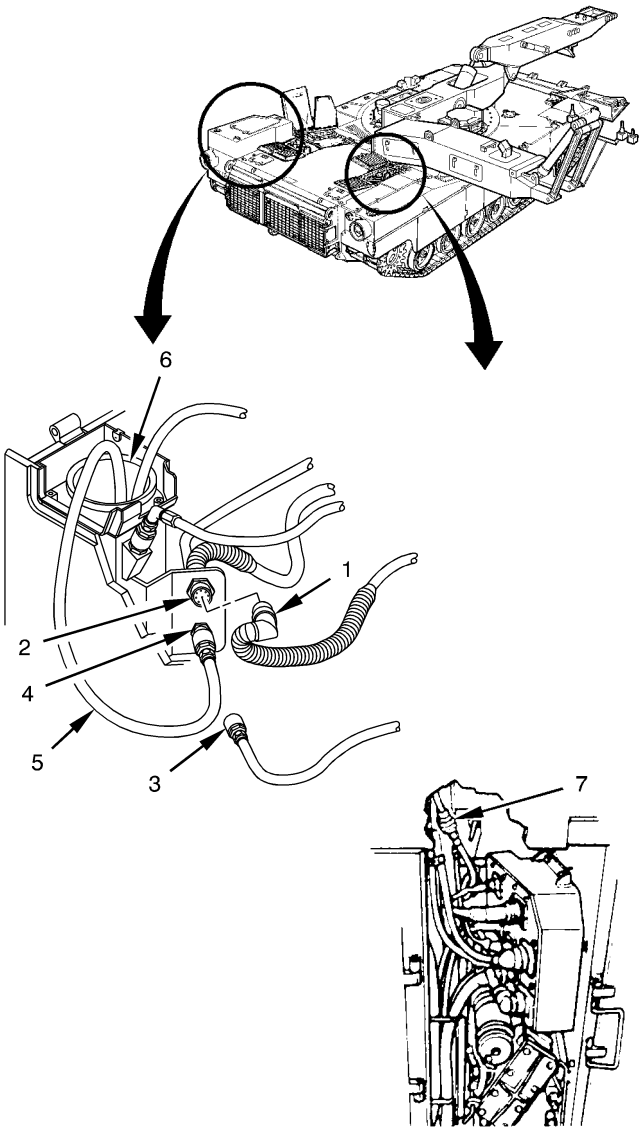
NOTE

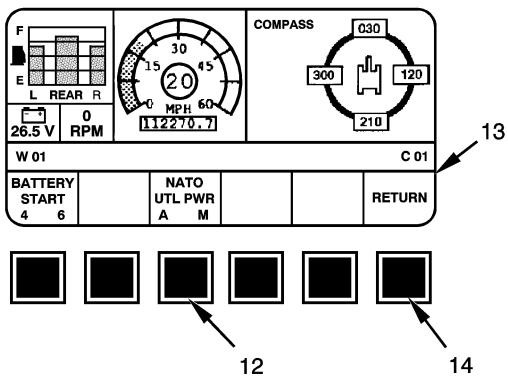
If purging main tank fuel lines only, go to step 6.

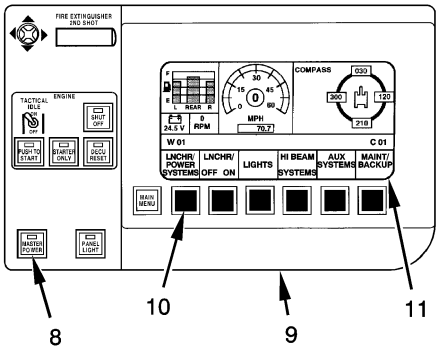
3. PRESS LNCHR/POWER SYSTEMS PUSHBUTTON (10) ON MAIN MENU (11).

4. PRESS NATO UTL PWR PUSHBUTTON (12) ON POWER SYSTEMS MENU (13) TO M (MANUAL).

5. PRESS RETURN PUSHBUTTON (14) ON POWER SYSTEMS MENU (13) ONE TIME TO RETURN TO MAIN MENU (11).







Go on to Sheet 3

3h3748

FUEL SYSTEM PURGING (Sheet 3 of 5)

6. PRESS MAINT/BACKUP PUSHBUTTON (1) ON MAIN MENU (2).

7. PRESS HULL CB PUSHBUTTON (3) ON MAINTENANCE/BACKUP MENU (4).

8. USING 4-WAY SWITCH (5) (UP-DOWN), SELECT CIRCUIT BREAKER DECU (6) ON HULL CB MENU (7).

NOTE

Digital electronic control unit (DECU) must be off for 70 seconds. If DECU is not off for 70 seconds, purging fuel system cannot be performed.

9. PRESS OFF PUSHBUTTON (8) ON HULL CB MENU (7). WAIT 70 SECONDS BEFORE GOING TO STEP 10.

10. PRESS RETURN PUSHBUTTON (9) ON HULL CB MENU (7) ONE TIME TO RETURN TO MAINTENANCE/BACKUP MENU (4).

11. PRESS CMDR ELCT PUSHBUTTON (10) ON MAINTENANCE/BACKUP MENU (4) TO OFF.

12. PRESS DIAG PUSHBUTTON (11) ON MAINTENANCE/BACKUP MENU (4).

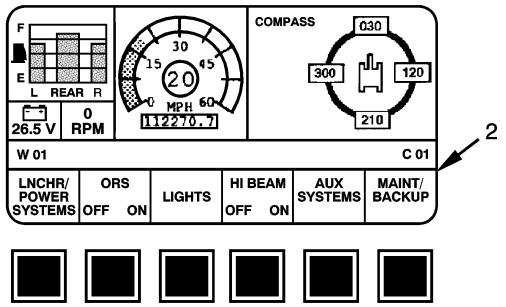
13. PRESS MAINT PUSHBUTTON (12) ON DIAGNOSTICS MENU (13).

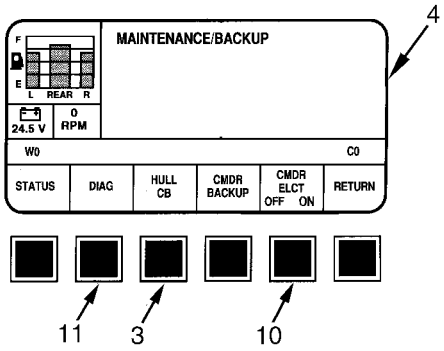
14. PRESS FUEL MAINT PUSHBUTTON (14) ON MAINTENANCE MENU (15).

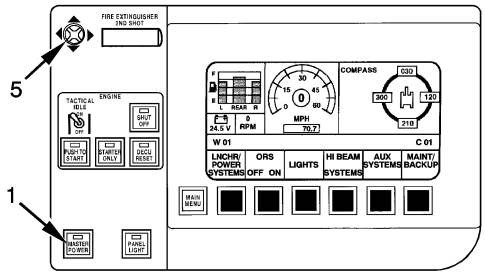
NOTE

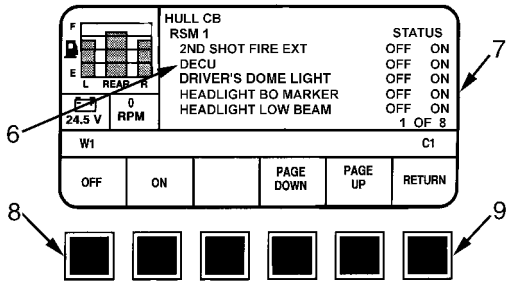
Vehicle fuel pump may immediately start to pump fuel when PURGE FUEL OFF/ON pushbutton (16) is turned ON.

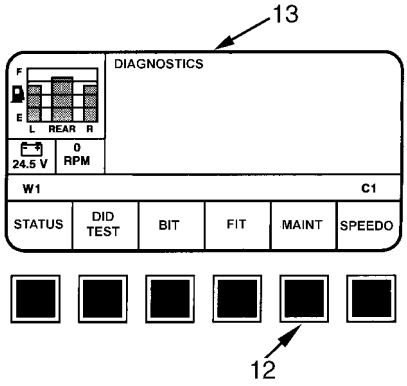
15. PRESS PURGE FUEL OFF/ON PUSHBUTTON (16) ON FUEL MAINTENANCE MENU (17) TO ON.

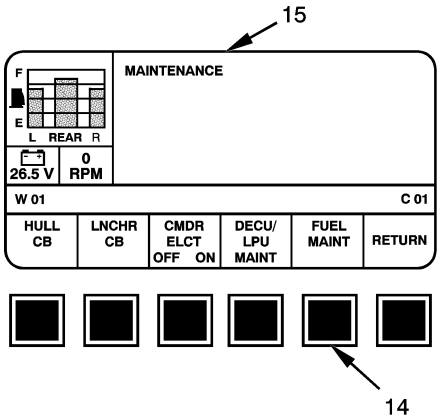


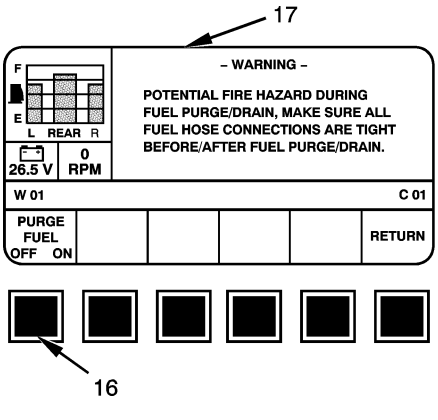












Go on to Sheet 4

habw4747

FUEL SYSTEM PURGING (Sheet 4 of 5)

NOTE

If purging main tank fuel lines do step 16. If purging LPU fuel lines go to step 17.

16. BLEED AIR FROM PRIMARY FILTER (1) AND FUEL WATER SEPARATOR (2).

    a. Go to engine compartment. Open drain cock (3) on filter (1). Leave drain cock (3) open until a steady flow of fuel with no bubbles comes out. Tighten drain cock (3).

    b. Open drain cock (4) on separator (2). Leave drain cock (4) open until a steady flow of fuel with no bubbles comes out. Tighten drain cock (4).

17. GO TO LEFT REAR FUEL INLET (5) AND LEAVE FUEL PUMPS RUNNING UNTIL A STEADY FLOW OF FUEL WITH NO BUBBLES COMES OUT OF HOSE ASSEMBLY (6).

18. PRESS PURGE FUEL OFF/ON PUSHBUTTON (7) ON FUEL MAINTENANCE MENU (8) TO OFF.

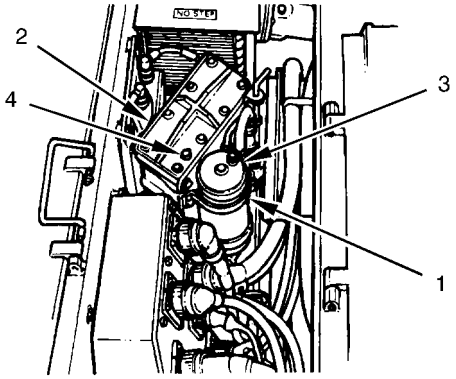
19. PRESS RETURN PUSHBUTTON (9) ON FUEL MAINTENANCE MENU (8) ONE TIME TO RETURN TO MAINTENANCE MENU (10).

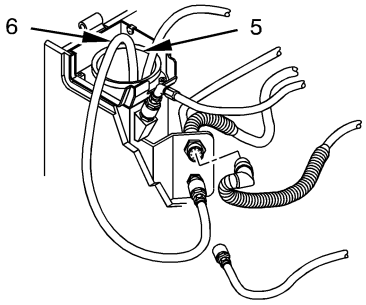
20. PRESS HULL CB PUSHBUTTON (11) ON MAINTENANCE MENU (10).

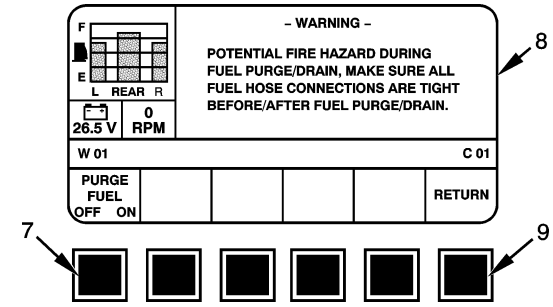
21. USING 4-WAY SWITCH (12) (UP-DOWN), SELECT CIRCUIT BREAKER DECU (13) ON HULL CB MENU (14).

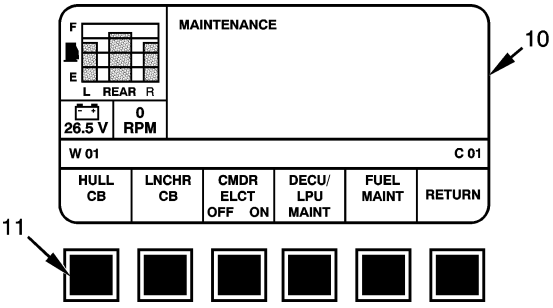
22. PRESS ON PUSHBUTTON (15) ON HULL CB MENU (14).

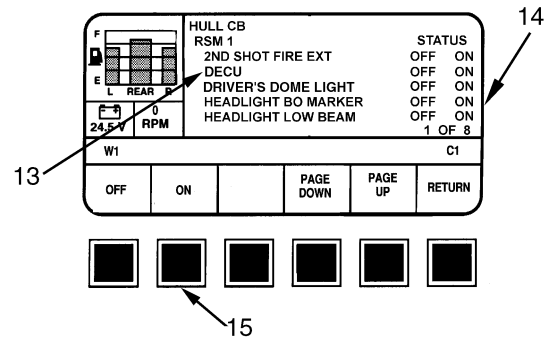
23. PRESS MASTER POWER PUSHBUTTON (16) ON DID (17) TO OFF.

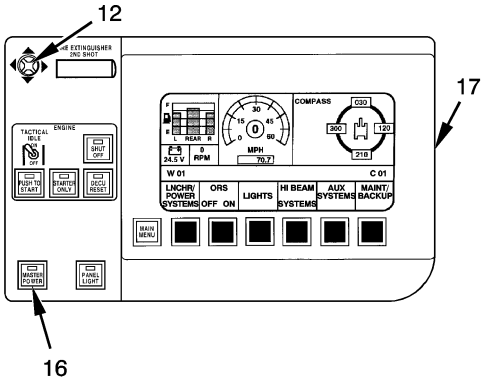












Go on to Sheet 5

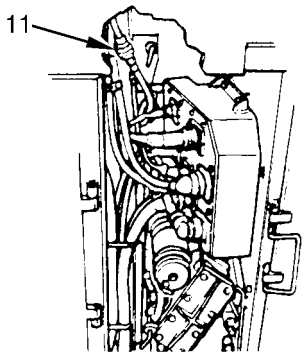
sepw4221

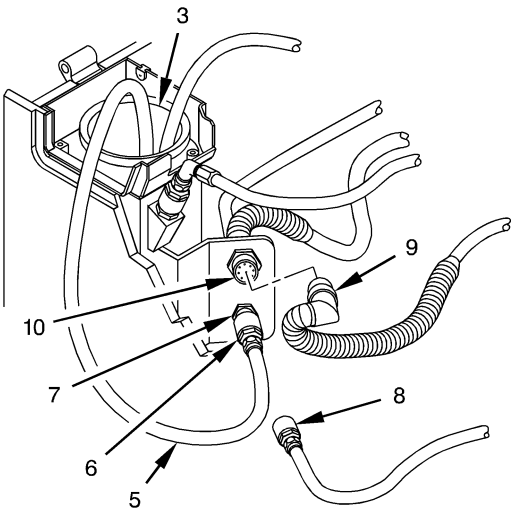
FUEL SYSTEM PURGING (Sheet 5 of 5)

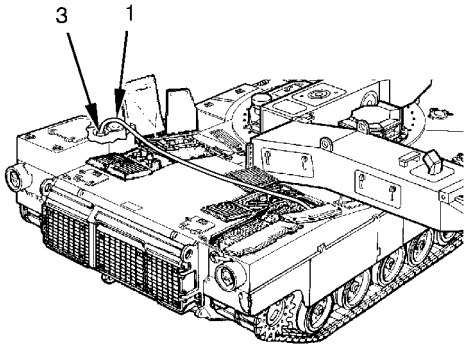
NOTE

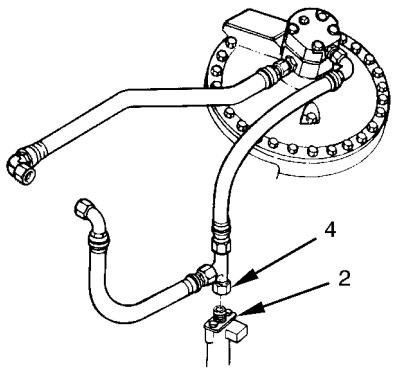
If purging main tank fuel lines do step 24. If purging LPU fuel lines go to step 25.

24. REMOVE HOSE (1).
    a. Disconnect hose (1) from adapter (2).
    b. Take hose (1) out of inlet (3).
    c. Connect tee (4) to adapter (2).
25. REMOVE HOSE (5).
    a. Disconnect coupler (6) from nipple (7).
    b. Remove hose assembly (5).
    c. Install quick-disconnect coupler (8) to nipple (7).
    d. Connect connector 2W144-10 P2 (9) to connector 2W103-10 J4 (10).
    e. Connect main engine fuel quick-disconnect (11).
26. INSTALL LEFT REAR FUEL CAP (TM 5-5420-232-10).
27. CLOSE LAUNCHER POWER UNIT (LPU) TOP ACCESS DOOR (TM 5-5420-232-10).
28. CLOSE LEFT REAR FUEL INLET COVER (TM 5-5420-232-10).
29. INSTALL ENGINE ACCESS COVER (TM 5-5420-232-10).
30. CLOSE RIGHT SIDE TOP DECK GRILLE DOORS (TM 5-5420-232-10).
31. CLOSE BOTH BATTERY COVERS (TM 5-5420-232-10).
32. CLOSE REAR ARM (PAGE 17-189).









End of Task 3h4749

REAR FUEL TANK DRAINING (Sheet 1 of 6)

TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)
Fire extinguisher (Item 79, Appendix E)
Nonmetallic hose assembly (Item 149, Appendix E) (2 required)
Hand driven dispensing pump (Item 63, Appendix E)

SUPPLIES: Fuel drum (Item 47, Appendix C) (as required)

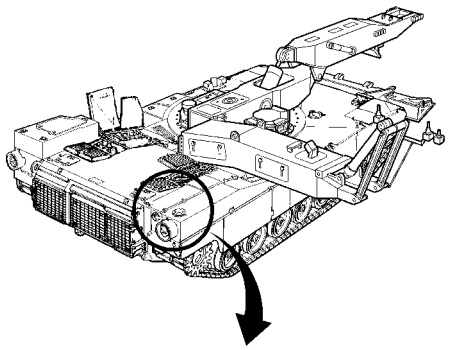
PERSONNEL: Three

EQUIPMENT CONDITION: Rear arm opened (page 17-188)
Both battery covers opened (TM 5-5420-232-10)
Rear precleaner door opened (TM 5-5420-232-10)
Top deck left and right grille doors opened (TM 5-5420-232-10)
Both battery covers closed (TM 5-5420-232-10)

WARNING

WARNING

Fuel is highly combustible. Put up "No Smoking Within 50 Feet of Vehicle" signs before draining fuel.



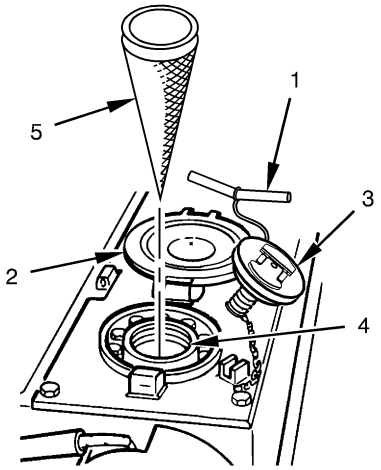
DRAINING:

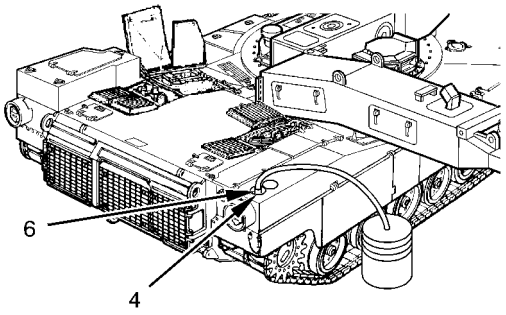
1. DRAIN SPONSON FUEL TANK.

   a. Remove cap retainer (1) from cover (2). Open cover (2).

   b. Remove cap (3) from filler neck (4). Remove strainer element (5) from filler neck (4).

   c. Pump fuel into drums with hand driven dispensing pump (6). Look through filler neck (4) to see when sponson fuel tank is empty.

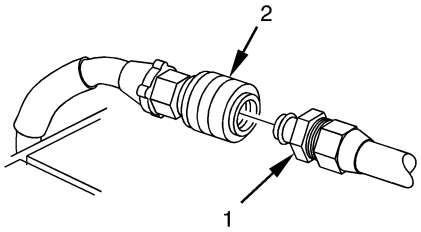


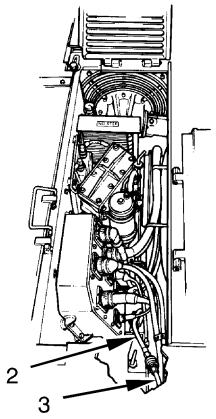


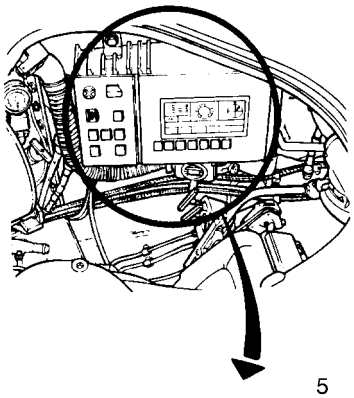
Go on to Sheet 2

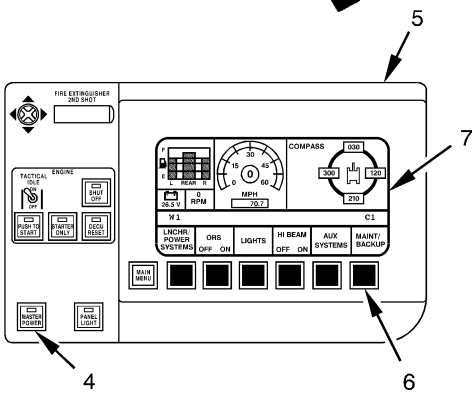
REAR FUEL TANK DRAINING (Sheet 2 of 6)

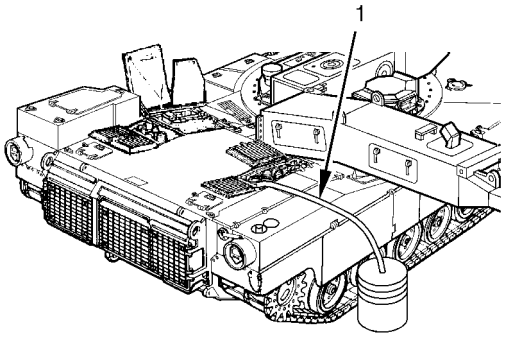
2. CONNECT HOSE ASSEMBLY (1) TO FUEL/ WATER SEPARATOR HOSE ASSEMBLY (2).
   a. Disconnect hose (2) from engine fuel tube (3). Push male end of other hose (1) on hose (2).
   b. Remove female end of hose (1).
3. PUT OTHER END OF HOSE (1) IN DRUM.
4. PRESS MASTER POWER PUSHBUTTON (4) ON DRIVER'S INTEGRATED DISPLAY (DID) (5) TO ON.
5. PRESS MAINT/BACKUP PUSHBUTTON (6) ON MAIN MENU (7).











Go on to Sheet 3

habw4764

REAR FUEL TANK DRAINING (Sheet 3 of 6)

6. PRESS HULL CB PUSHBUTTON (1) ON MAINTENANCE/BACKUP MENU (2).

7. USING 4-WAY SWITCH (3) (UP-DOWN), SELECT CIRCUIT BREAKER DECU (4) ON HULL CB MENU (5).

NOTE

DECU must be off for 70 seconds. If DECU is not off for 70 seconds, purging fuel system cannot be performed.

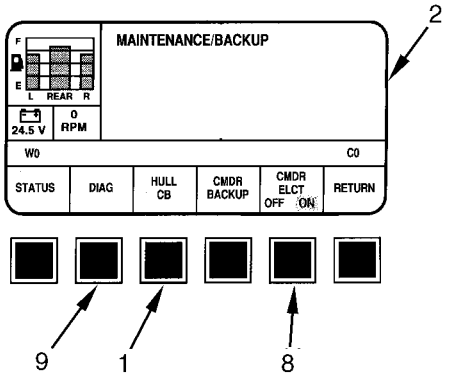
8. PRESS OFF PUSHBUTTON (6) ON HULL CB MENU (5). WAIT 70 SECONDS BEFORE GOING TO STEP 9.

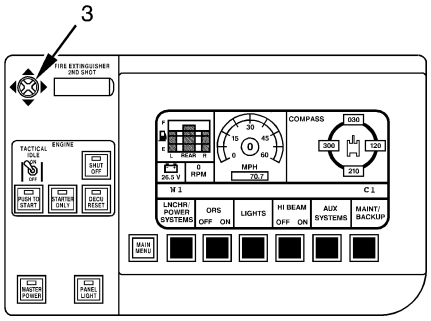
9. PRESS RETURN PUSHBUTTON (7) ON HULL CB MENU (5) ONE TIME TO RETURN TO MAINTENANCE/BACKUP MENU (2).

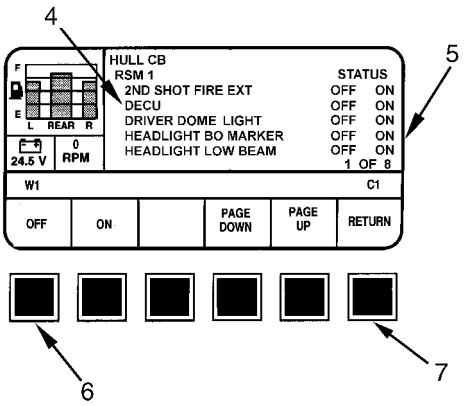
10. PRESS CMDR ELCT OFF/ON PUSHBUTTON (8) ON MAINTENANCE/BACKUP MENU (2) TO OFF.

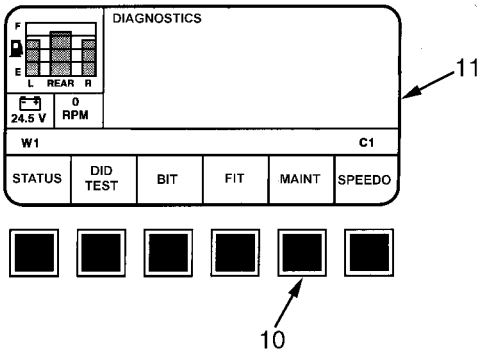
11. PRESS DIAG PUSHBUTTON (9) ON MAINTENANCE/BACKUP MENU (2).

12. PRESS MAINT PUSHBUTTON (10) ON DIAGNOSTICS MENU (11).









Go on to Sheet 4

sepw4765

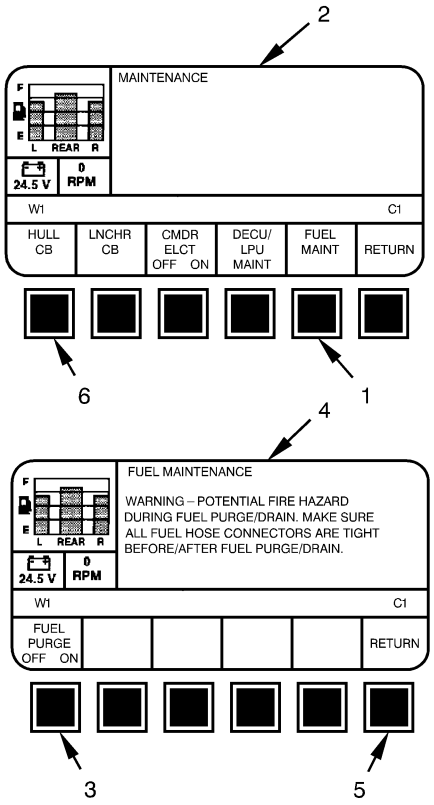
REAR FUEL TANK DRAINING (Sheet 4 of 6)

13. PRESS FUEL MAINT PUSHBUTTON (1) ON MAINTENANCE MENU (2).

NOTE

- Vehicle fuel pump will immediately start to pump fuel when FUEL PURGE OFF/ON PUSHBUTTON (3) is turned on.
- Fill fuel drums one at a time.

14. PRESS FUEL PURGE OFF/ON PUSHBUTTON (3) ON FUEL MAINTENANCE MENU (4) TO ON.
15. PRESS FUEL PURGE OFF/ON PUSHBUTTON (3) TO OFF WHEN EACH DRUM IS FULL OR WHEN FUEL TANKS ARE EMPTY.
16. REPEAT STEP 15 UNTIL FUEL TANKS ARE EMPTY.
17. PRESS FUEL PURGE OFF/ON PUSHBUTTON (3) ON FUEL MAINTENANCE MENU (4) TO OFF.
18. PRESS RETURN PUSHBUTTON (5) ON FUEL MAINTENANCE MENU (4) ONE TIME TO RETURN TO MAINTENANCE MENU (2).
19. PRESS HULL CB PUSHBUTTON (6) ON MAINTENANCE MENU (2).



Go on to Sheet 5

habw4766

REAR FUEL TANK DRAINING (Sheet 5 of 6)

20. USING 4-WAY SWITCH (1) (UP-DOWN), SELECT CIRCUIT BREAKER DECU (2) ON HULL CB MENU (3).

21. PRESS ON PUSHBUTTON (4) ON HULL CB MENU (3).

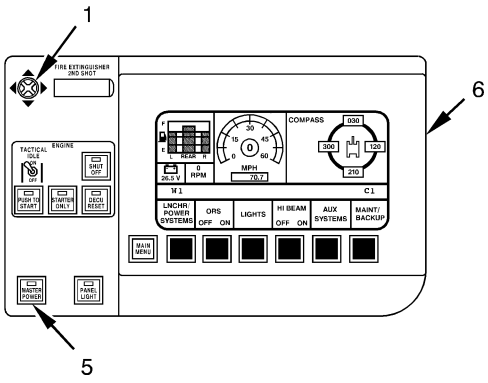
22. PRESS MASTER POWER PUSHBUTTON (5) ON DID (6) TO OFF.

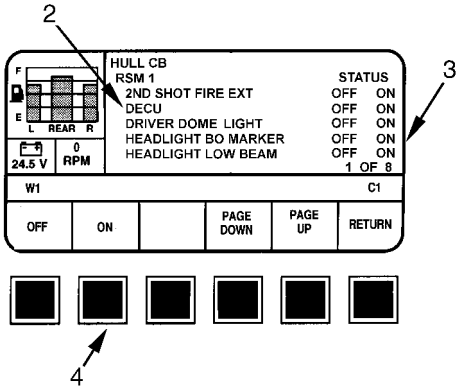
23. DISCONNECT HOSE (7) AND CONNECT HOSE (8).

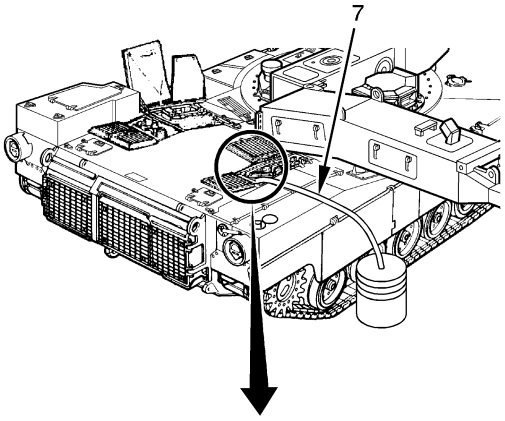
    a. Disconnect hose (7) from hose (8). Connect hose (8) on tube (9).

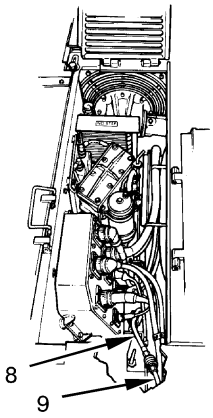
    b. Tighten male and female end of hose (7).

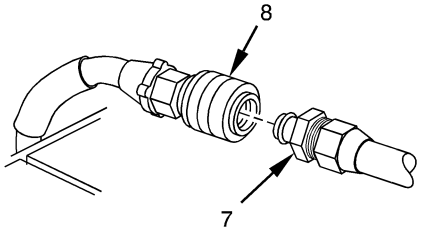
    c. Take hose (7) out of drum.









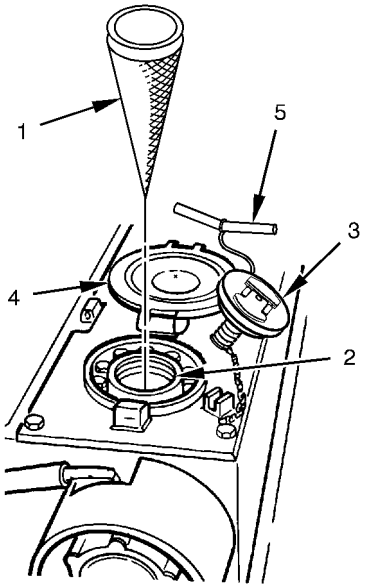


Go on to Sheet 6

habw4767

REAR FUEL TANK DRAINING (Sheet 6 of 6)

24. CLOSE FUEL INLET.
    a. Put element (1) in filler neck (2).
    b. Screw cap (3) on filler neck (2).
    c. Close cover (4). Put retainer (5) in cover (4).
25. OPEN BOTH BATTERY COVERS (TM 5-5420-232-10).
26. CLOSE TOP DECK LEFT AND RIGHT GRILLE DOORS (TM 5-5420-232-10).
27. CLOSE REAR PRECLEANER DOOR (TM 5-5420-232-10).
28. CLOSE BOTH BATTERY COVERS (TM 5-5420-232-10).
29. CLOSE REAR ARM (PAGE 17-189).



End of Task

LEFT FRONT FUEL TANK ACCESS COVER, FUEL LEVEL LIQUID TRANSMITTER, AND PERSONNEL HEATER PRESSURE FLUID FILTER REPLACEMENT (Sheet 1 of 7)

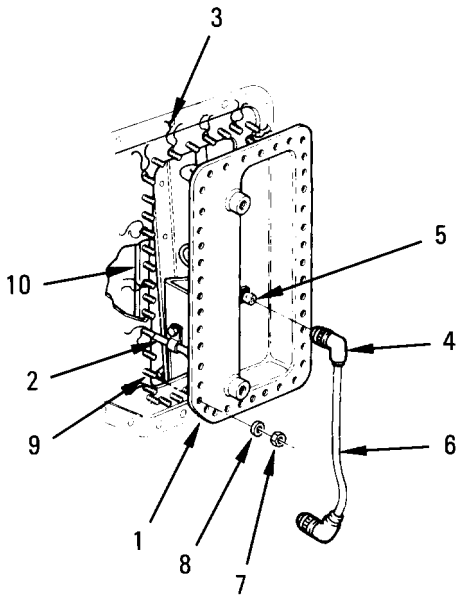
TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)
Crowfoot attachment, 3/8-inch drive, 9/16-inch (Item 57, Appendix E)
Measuring tape, 50-foot (Item 266, Appendix E)
Pocket knife (Item 128, Appendix E)
Ratchet handle, 3/8-inch drive (Item 109, Appendix E)
Socket, 3/8-inch drive, 3/8-inch (Item 232, Appendix E)
Socket, 3/8-inch drive, 7/16-inch (Item 234, Appendix E)
Socket, 3/8-inch drive, 9/16-inch (Item 235, Appendix E)
Torque wrench, 0-600 in-lb (Item 332, Appendix E)
Torque wrench, 0-200 in-lb (Item 325, Appendix E)

SUPPLIES: Acid swabbing brush (Item 26, Appendix C)
Gasket (Item 52, Appendix G)
Nonelectric wire (Item 133, Appendix C)
Sealing compound (Item 103, Appendix C)
Sealing compound primer (Item 91, Appendix C)
Self-locking nut (Item 153, Appendix G) (6 required)
Self-locking nut (Item 176, Appendix G) (33 required)
Writing paper (Item 84, Appendix C)
Writing pencil (Item 85, Appendix C)
If cover, transmitter, and filter are disassembled, you will need:
Nonmetallic hose (Item 83, Appendix G)
Preformed packing (Item 234, Appendix G)
Self-locking nut (Item 152, Appendix G) (3 required)
Preformed packing (Item 206, Appendix G)

EQUIPMENT CONDITION: Left front fuel tank bulkhead access cover removed (page 7-31)

REMOVAL:

1. SEPARATE COVER (1) FROM FUEL TANK (2). INSTALL NEW NONELECTRIC (SAFETY) WIRE (3).
   a. Disconnect plug connector (4) from receptacle connector (5). Inspect wiring harness (6) for burned or broken contacts, dented shell, stripped threads, torn or cracked insulation, or exposed wires. Replace as required.
   b. Remove 33 self-locking nuts (7) and washers (8) from studs (9).
   c. Gently pry cover (1) loose from fuel tank (2).
   d. Wrap wire (3) around every other stud (9) on top of mounting plate assembly (10) and around every third stud (9) on both sides of plate (10).



Go on to Sheet 2

2w1724

LEFT FRONT FUEL TANK ACCESS COVER, FUEL LEVEL LIQUID TRANSMITTER, AND PERSONNEL HEATER PRESSURE FLUID FILTER REPLACEMENT (Sheet 2 of 7)

NOTE

Turn cover (1) with transmitter (2) in fuel tank (3), as needed, to reach four screws (4) and self-locking nuts (5).

2. SEPARATE AND REMOVE COVER (1) AND TRANSMITTER (2) FROM FUEL TANK (3).

   a. Remove four top screws (4), eight washers (6), and four self-locking nuts (5) from cover (1) and transmitter (2).

   b. Loosen bottom two screws (7) and nuts (8) from cover (1) and transmitter (2).

   c. Tilt transmitter (2) back in fuel tank (3). Remove cover (1) with gasket (9) and transmitter (2) from fuel tank (3).

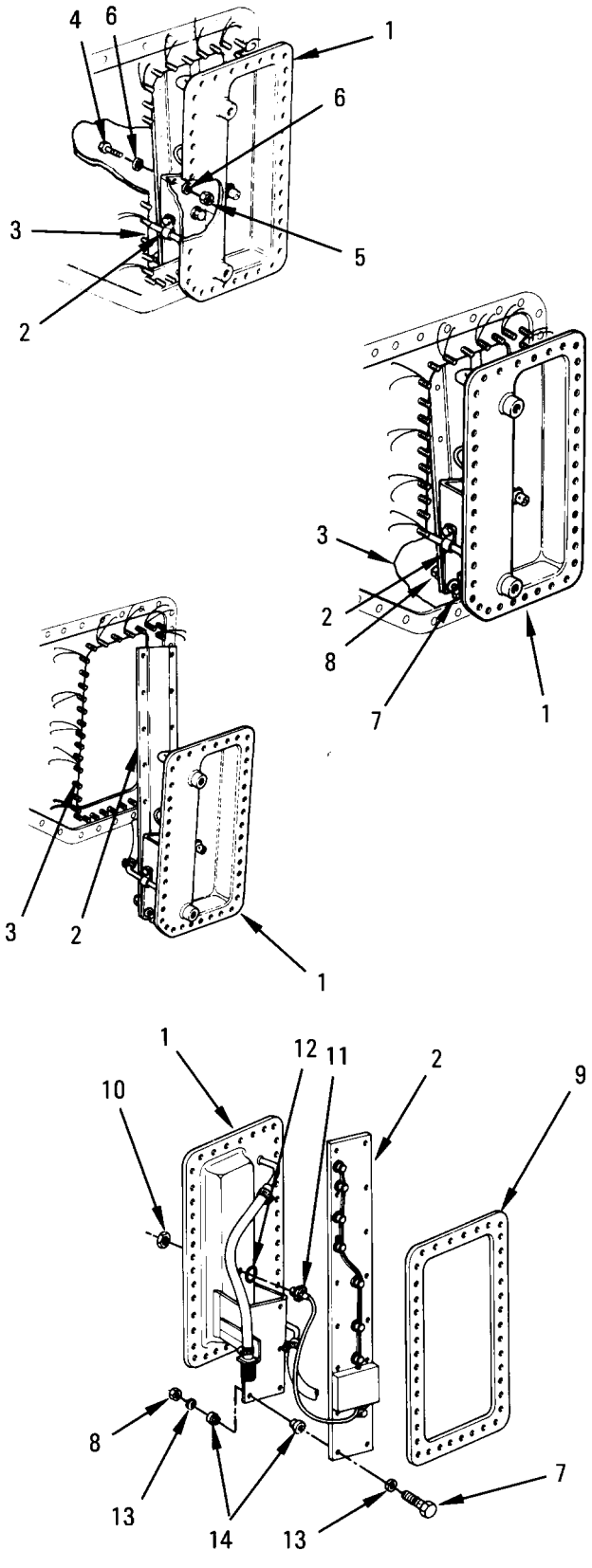
3. REMOVE TRANSMITTER (2). INSPECT PARTS FOR DAMAGE. REPLACE AS REQUIRED.

   a. Remove nut (10) from connector (11). Remove connector (11) from cover (1). Remove preformed packing (12) from connector (11).

   b. Remove two screws (7), four washers (13), 12 shoulder washers (14), and two self-locking nuts (8) from cover (1) and transmitter (2).

   c. Remove transmitter (2) from cover (1). Inspect transmitter (2) for damage or broken connector (11). Replace as required.

4. SCRAPE GASKET (9) AND ANY ADHESIVE OFF COVER (1) AND FUEL TANK (3).



Go on to Sheet 3

2w3637

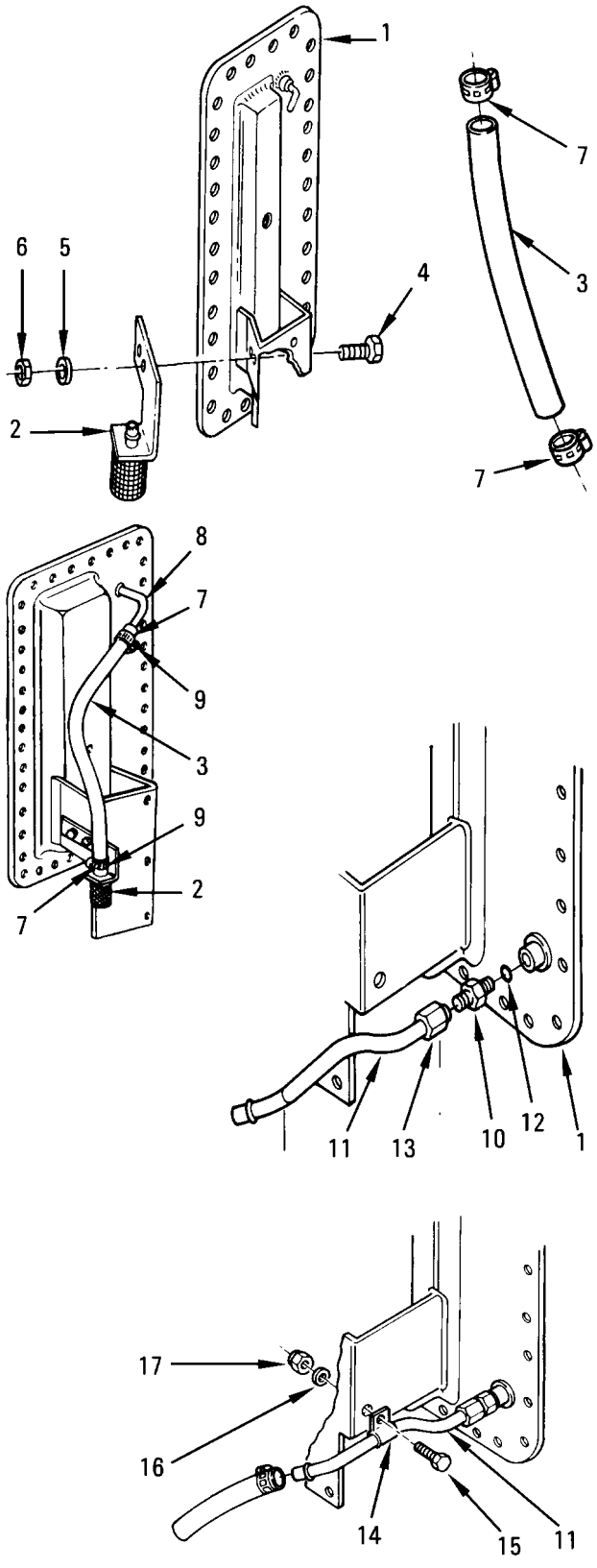
LEFT FRONT FUEL TANK ACCESS COVER, FUEL LEVEL LIQUID TRANSMITTER, AND PERSONNEL HEATER PRESSURE FLUID FILTER REPLACEMENT (Sheet 5 of 7)

INSTALLATION:

NOTE

If cover (1) was removed for access only, go to step 4.

1. INSTALL FILTER (2) AND HEATER FUEL HOSE (3).
   a. Put filter (2) in place on cover (1). Install two screws (4), washers (5), and new self-locking nuts (6) in filter (2) and cover (1).
   b. Remove two clamps (7) from ends of old heater fuel hose (3). Cut new hose (3) to length of old hose (3).
   c. Put clamps (7) on ends of new hose (3). Push ends of hose (3) in place on filter (2) and tube (8). Tighten two screws (9).
2. INSTALL ADAPTER (10) AND TUBE (11).
   a. Install adapter (10) and new packing (12) to cover (1).
   b. Put tube (11) in place on adapter (10). Connect nut (13) on adapter (10).
   c. Put clamp (14) in place on tube (11). Install screw (15), washer (16), and new self-locking nut (17) to clamp (14) and cover (1).
   d. Tighten nut (13) to adapter (10).



Go on to Sheet 6

2w1728

LEFT FRONT FUEL TANK ACCESS COVER, FUEL LEVEL LIQUID TRANSMITTER, AND PERSONNEL HEATER PRESSURE FLUID FILTER REPLACEMENT (Sheet 6 of 7)

3. INSTALL NEW HOSE (1).
   a. Remove clamp (2) from end of old hose (1). Cut new hose (1) to length of old hose (1). Cut an angle 1/4-inch by 5/8-inch (6.4 mm by 1.59 cm) on bottom end of new hose (1).

NOTE

If tube (3) is new, do step b.

   b. Make measurement (4) from end of tube (3) equal to measurement written down during removal for location of new hose (1) and mark with pencil.
   c. Put clamp (2) on end of new hose (1). Push new hose (1) on tube (3) to mark (5). Turn hose (1) so angle faces away from cover (6). Tighten screw (7).
4. PARTIALLY ASSEMBLE TRANSMITTER (8) AND COVER (6) AND POSITION TRANSMITTER (8) IN FUEL TANK (9) AND COVER (6) OVER FUEL TANK (9).
   a. Put 12 shoulder washers (10) and transmitter (8) in place on cover (6).

NOTE

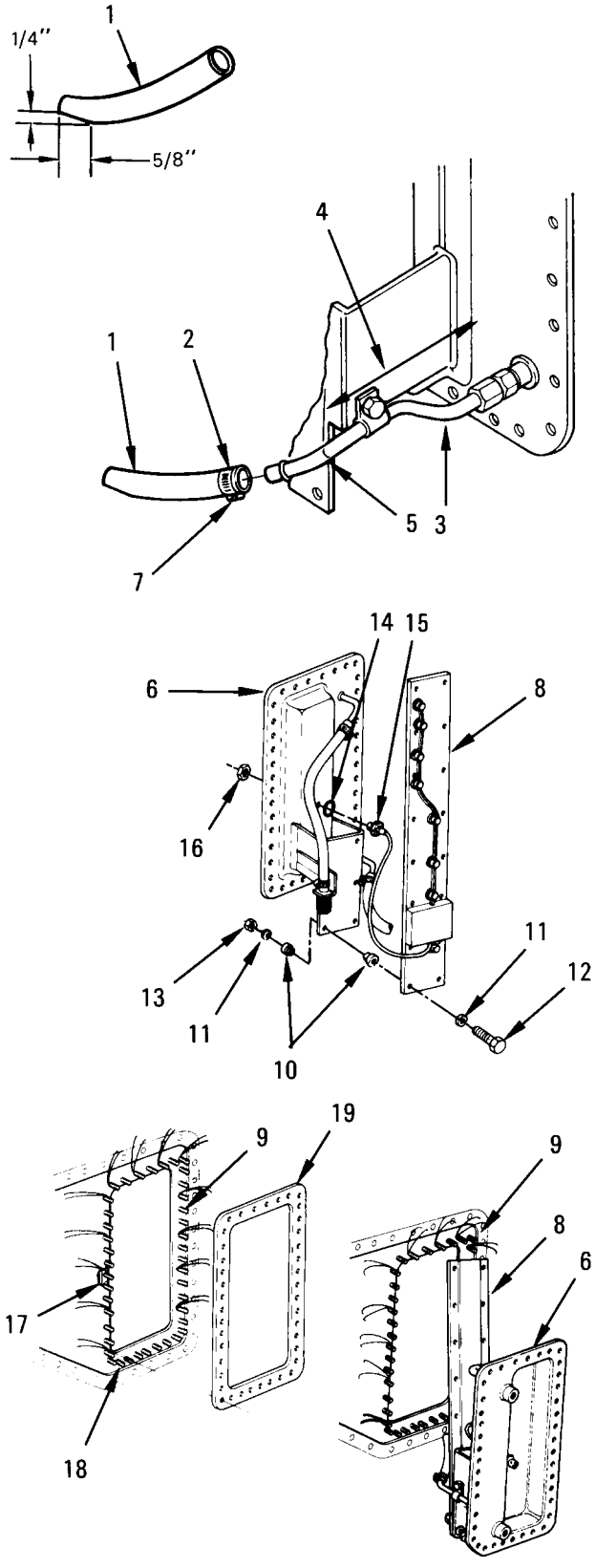
Smaller diameter washers (11) go under heads of screws (12).

   b. Install two bottom screws (12), four washers (11), and two new self-locking nuts (13) to bottom of transmitter (8) and cover (6).
   c. Put new preformed packing (14) and connector (15) in place in cover (6). Install nut (16) to connector (15) and torque nut (16) between 150-160 lb-in (17-18 N•m).

NOTE

- If plate (17) with 33 studs (18) was removed, install left front fuel tank mounting plate assembly (page 7-69).
- Sealing compound dries very fast. All parts must be assembled within 10 minutes after putting on sealant.

   d. Apply primer on both sides of new gasket (19) and let dry.
   e. Apply sealing compound on both sides of gasket (19) with brush. Put gasket (19) in place on fuel tank (9).
   f. Tilt transmitter (8) back on cover (6). Put cover (6) over opening in fuel tank (9) with transmitter (8) in fuel tank (9).



Go on to Sheet 7

2w3638

RIGHT FRONT FUEL TANK COVER ASSEMBLY AND FUEL LEVEL LIQUID TRANSMITTER REPLACEMENT (Sheet 1 of 5)

TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)
Extension, 3/8-inch drive, 6-inch (Item 77, Appendix E)
Pocket knife (Item 128, Appendix E)
Ratchet handle, 3/8-inch drive (Item 109, Appendix E)
Socket, 3/8-inch drive, 3/8-inch (Item 232, Appendix E)
Socket, 3/8-inch drive, 9/16-inch (Item 235, Appendix E)
Socket, 3/8-inch drive, 3/4-inch (Item 231, Appendix E)
Torque driver wrench, 0-90 kg-cm (Item 320, Appendix E)
Torque wrench, 0-600 in-lb (Item 332, Appendix E)
Torque wrench, 0-175 ft-lb (Item 324, Appendix E)
Torque wrench, 0-200 in-lb (Item 325, Appendix E)

SUPPLIES: Acid swabbing brush (Item 26, Appendix C)
Gasket (Item 53, Appendix G)
Nonelectric wire (Item 133, Appendix C)
Sealing compound (Item 103, Appendix C)
Sealing compound primer (Item 91, Appendix C)
Self-locking nut (Item 176, Appendix G) (40 required)
Writing paper (Item 84, Appendix C)
Writing pencil (Item 85, Appendix C)
If cover and transmitter are disassembled, you will need:
Nonmetallic hose (Item 83, Appendix G)
Preformed packing (Item 206, Appendix G)
Preformed packing (Item 234, Appendix G)
Self-locking nut (Item 153, Appendix G) (6 required)
Self-locking nut (Item 172, Appendix G) (2 required)

EQUIPMENT CONDITION: Right front fuel tank bulkhead access cover removed (page 7-46)

REMOVAL:

1. REMOVE COVER (1).
   a. Disconnect plug connector (2) from receptacle connector (3). Inspect wiring harness (4) for burned or broken contacts, dented shell, stripped threads, torn or cracked insulation, or exposed wires. Replace as required.
   b. Remove 40 self-locking nuts (5) and washers (6) from studs (7). Gently pry cover (1) loose from fuel tank (8).
   c. Wrap nonelectric (safety) wire (9) around every other stud (7) on top of mounting plate assembly (10) and around every third stud (7) on both sides of plate (10).
   d. Remove cover (1) with gasket (11) and transmitter (12) from fuel tank (8). Scrape gasket (11) and any adhesive off cover (1) or fuel tank (8).

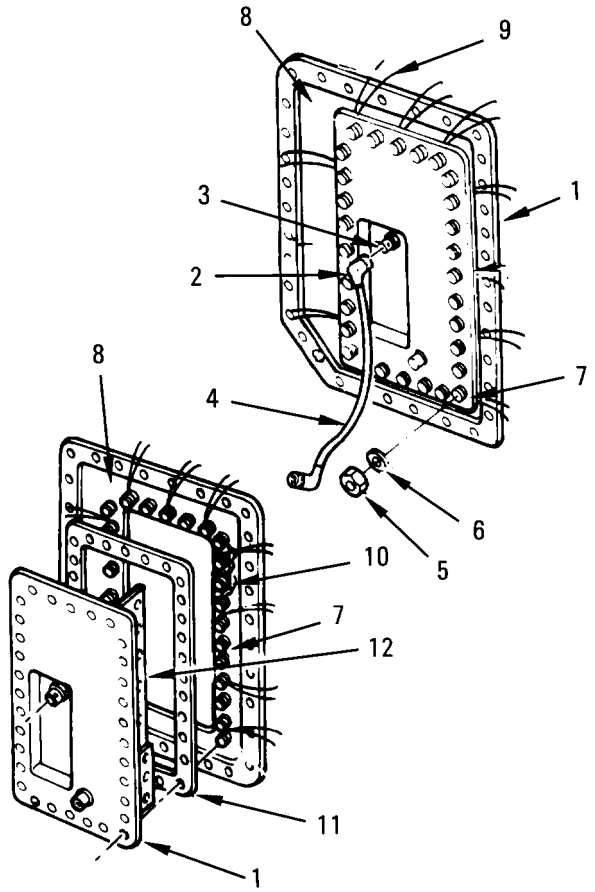
NOTE

If plate (10) or any stud (7) feels loose or has been damaged, do step 2.

2. REMOVE RIGHT FRONT FUEL TANK MOUNTING PLATE ASSEMBLY (PAGE 7-68).

NOTE

This is end of task if cover (1) and transmitter (12) were removed for access only.



Go on to Sheet 2

2w1741

RIGHT FRONT FUEL TANK COVER ASSEMBLY AND FUEL LEVEL LIQUID TRANSMITTER REPLACEMENT (Sheet 2 of 5)

3. REMOVE TRANSMITTER (1) FROM COVER (2). INSPECT PARTS FOR DAMAGE. REPLACE AS REQUIRED.

   a. Remove nut (3) from plug connector (4). Remove connector (4) from cover (2). Remove preformed packing (5) from connector (4).

   b. Remove six screws (6), self-locking nuts (7), 12 washers (8), and six shoulder washers (9) from transmitter (1) and mounting bracket (10).

   c. Remove transmitter (1) and six shoulder washers (11) from bracket (10). Inspect transmitter (1) for damage, broken connector (4), or cut or torn wire (12). Replace as required.

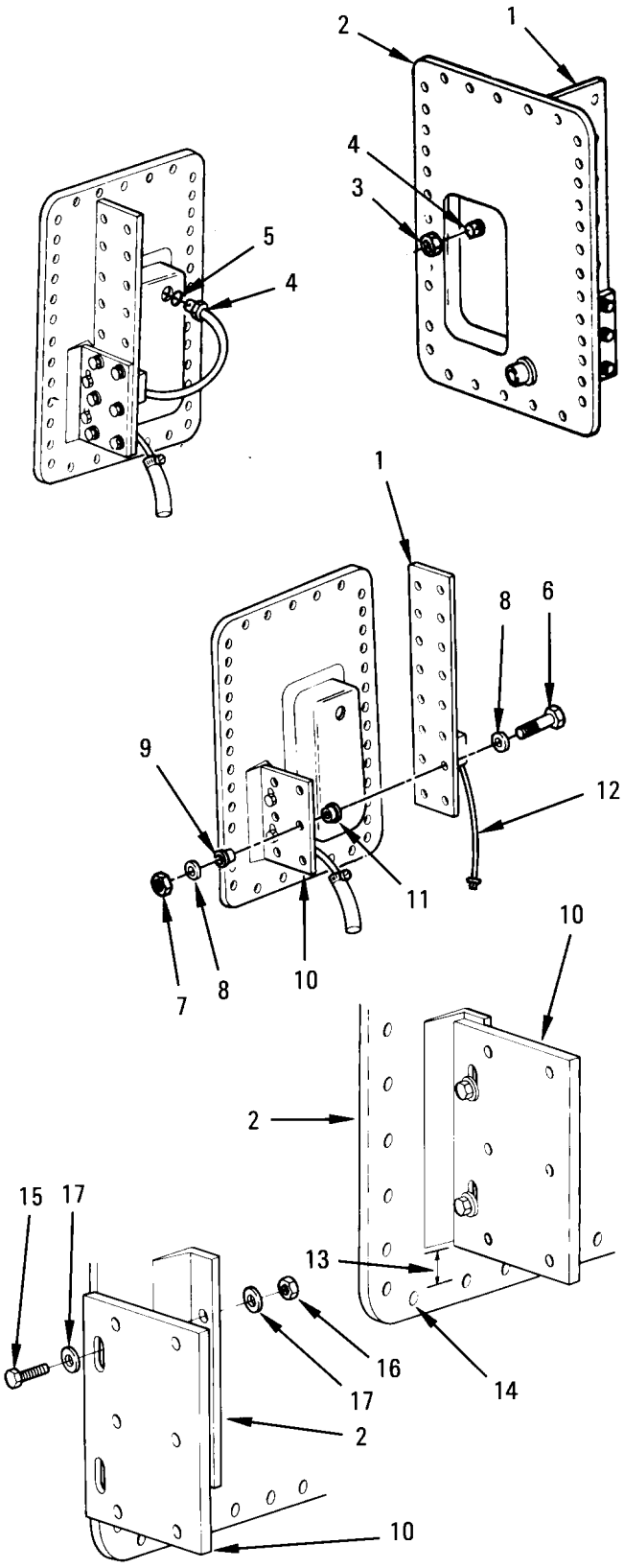
   d. Inspect other parts for damage. Replace as required.

4. REMOVE BRACKET (10) FROM COVER (2). INSPECT PARTS FOR DAMAGE. REPLACE AS REQUIRED.

   a. Measure (13) from bottom of bracket (10) to top of hole (14) in cover (2). Write measurement (13) on paper with pencil.

   b. Remove two screws (15), self-locking nuts (16), and four washers (17) from bracket (10) and cover (2).

   c. Inspect parts for damage. Replace as required.



Go on to Sheet 3

2w3640

RIGHT FRONT FUEL TANK COVER ASSEMBLY AND FUEL LEVEL LIQUID TRANSMITTER REPLACEMENT (Sheet 3 of 5)

5. REMOVE ENGINE FUEL HOSE ASSEMBLY (1) FROM COVER (2). INSPECT PARTS FOR DAMAGE. TRANSFER ANY MEASUREMENTS AND REPLACE AS REQUIRED.

   a. Mark location of hose (1) on fuel tube assembly (3) with pencil.

   b. Loosen clamp screw (4). Take hose (1) and hose clamp (5) off tube (3).

   c. Inspect cover (2) for damage or broken welds. If damaged, do step d.

   d. Make measurement (6) from end of tube (3) to mark (7) on tube (3) made in step a. Write measurement (6) on paper with pencil. Replace cover (2).

   e. Inspect other parts for damage. Replace as required.

INSTALLATION:

NOTE

If cover assembly (2) was removed for access only, go to step 5.

1. INSTALL HOSE (1) ON COVER (2).

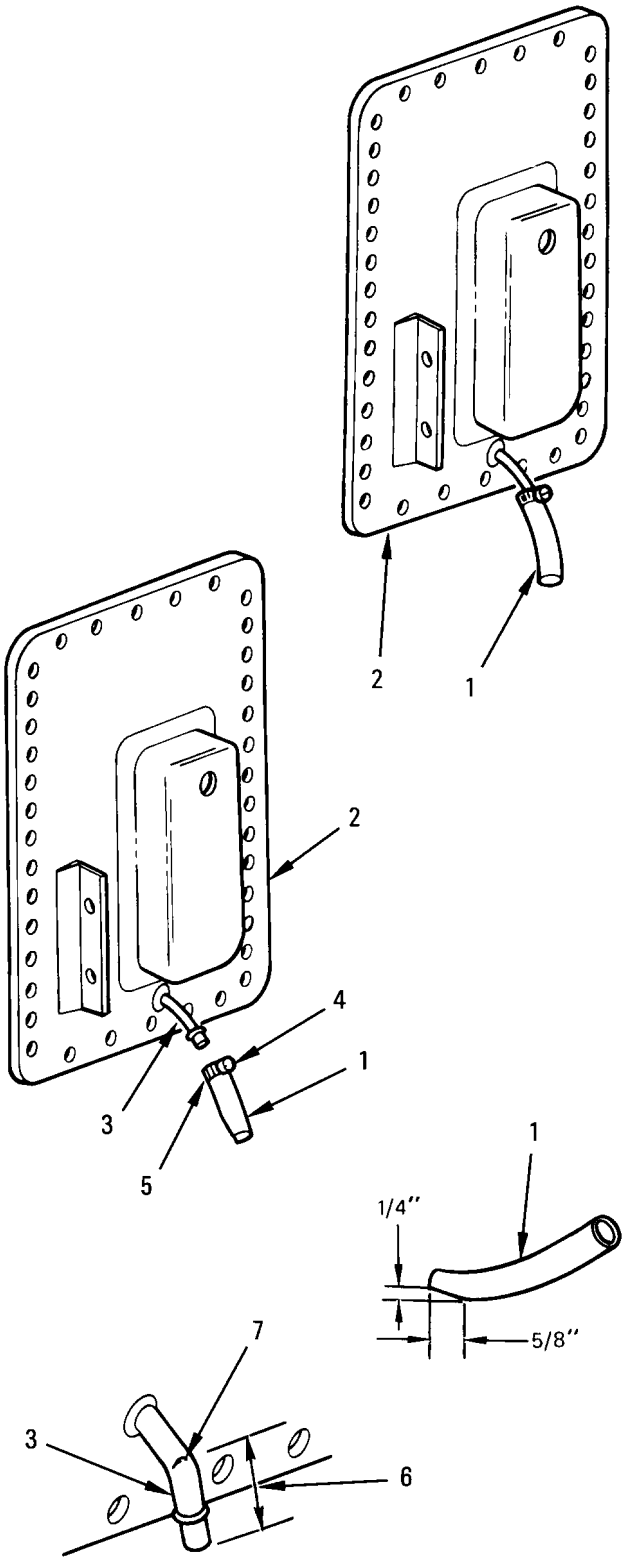
   a. Remove hose clamp (5) from old engine fuel hose (1). Cut new hose (1) to length of old hose (1). Cut an angle 1/4-inch by 5/8-inch (6.4 mm by 1.59 cm) on bottom end of hose (1).

NOTE

If cover (2) is new, do step b.

   b. Measure and mark distance from end of fuel tube (3) equal to measurement in removal task with rule and pencil.

   c. Put clamp (5) on end of hose (1). Put hose (1) in place on tube (3). Turn hose (1) so angle faces cover (2). Tighten screw (4).



Go on to Sheet 4

2w3641

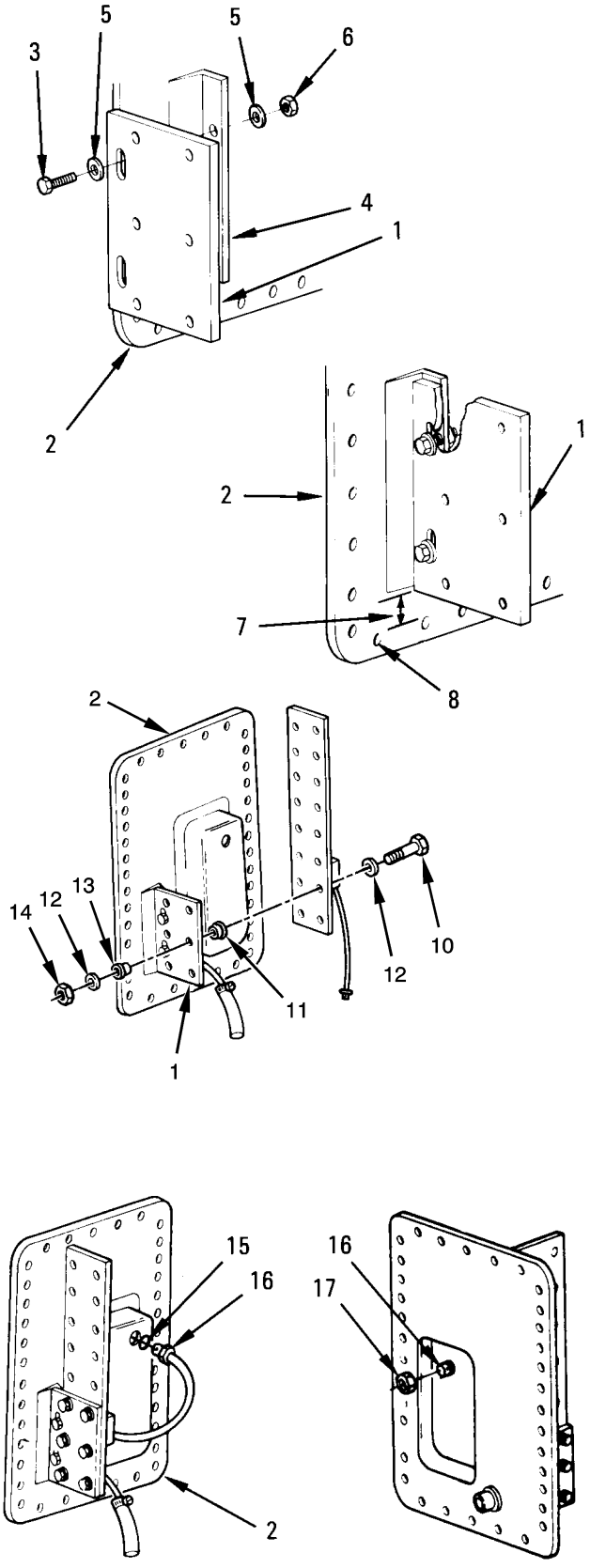
RIGHT FRONT FUEL TANK COVER ASSEMBLY AND FUEL LEVEL LIQUID TRANSMITTER REPLACEMENT (Sheet 4 of 5)

2. INSTALL BRACKET (1) ON COVER (2). TORQUE TWO SCREWS (3) BETWEEN 45-55 LB-FT (62-74 N•m).
   a. Put bracket (1) in place on bracket (4).
   b. Loosely install two screws (3), four washers (5), and two new self-locking nuts (6) to bracket (1) and bracket (4).
   c. Make measurement (7) from bottom of bracket (1) to top of hole (8) in cover (2).
   d. Move bracket (1) up or down until measurement (7) is equal to measurement written down in removal task for location of bracket (1).
   e. Tighten screws (3) and self-locking nuts (6). Torque screws (3) between 45-55 lb-ft (62-74 N•m).
3. INSTALL TRANSMITTER (9) ON COVER (2). TORQUE SIX SCREWS (10) BETWEEN 29-35 KG-CM (25-30 LB-IN).
   a. Put six shoulder washers (11) and transmitter (9) in place on bracket (1).

NOTE

Smaller diameter washers (12) go under heads of screws (10).

   b. Install six screws (10), 12 washers (12), six shoulder washers (13), and six new self-locking nuts (14) to transmitter (9) and bracket (1).
   c. Torque screws (10) between 29-35 kg-cm (25-30 lb-in).
4. PUT NEW PREFORMED PACKING (15) AND CONNECTOR (16) IN PLACE ON COVER (2). INSTALL NUT (17) ON CONNECTOR (16) AND TORQUE NUT (17) BETWEEN 150-160 LB-IN (17-18 N•m).



Go on to Sheet 5

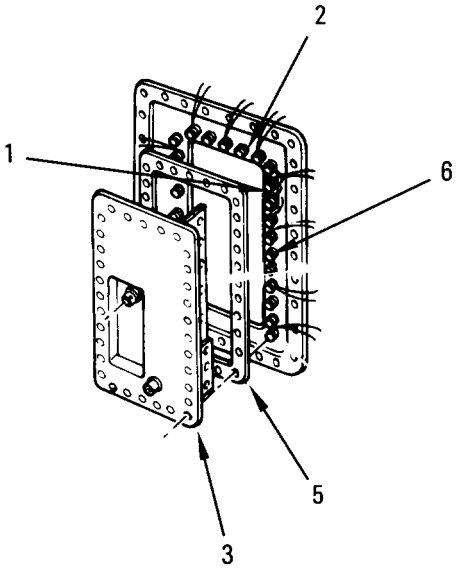
2w3642

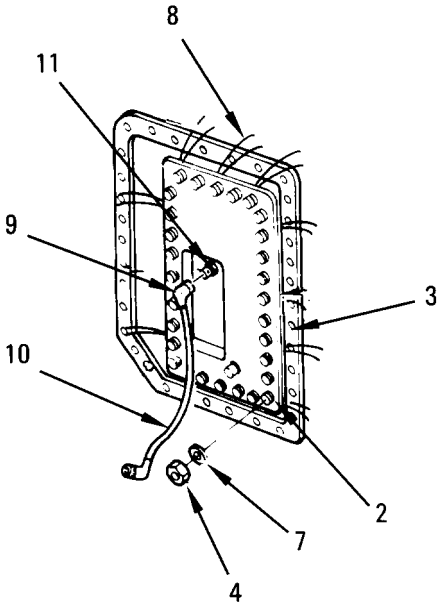
RIGHT FRONT FUEL TANK COVER ASSEMBLY AND FUEL LEVEL LIQUID TRANSMITTER REPLACEMENT (Sheet 5 of 5)

NOTE

- If plate (1) with 40 studs (2) was removed, install right front fuel tank mounting plate assembly (page 7-69).
- Sealing compound dries very fast. All parts must be assembled within 10 minutes after putting on sealant.

5. INSTALL COVER (3). TORQUE 40 NEW SELF-LOCKING NUTS (4) BETWEEN 425-550 LB-IN (48-61 N•m).
   a. Apply primer on both sides of new gasket (5) and let dry.
   b. Apply sealing compound on both sides of gasket (5) with brush.
   c. Put gasket (5) and cover (3) in place on fuel tank (6).
   d. Start 40 self-locking nuts (4) and washers (7) on studs (2) by hand.
   e. Gently pry up cover (3) enough to take wire (8) off studs (2). Put cover (3) back in place.
   f. Tighten nuts (4) on cover (3). Torque self-locking nuts (4) between 425-550 lb-in (48-61 N•m).
6. JOIN CONNECTOR (9) OF HARNESS (10) TO CONNECTOR (11).
7. INSTALL RIGHT FRONT FUEL TANK BULKHEAD ACCESS COVER (PAGE 7-49).





End of Task

2w1745

FRONT FUEL TANKS CROSSOVER RUBBER HOSE REPLACEMENT (Sheet 1 of 3)

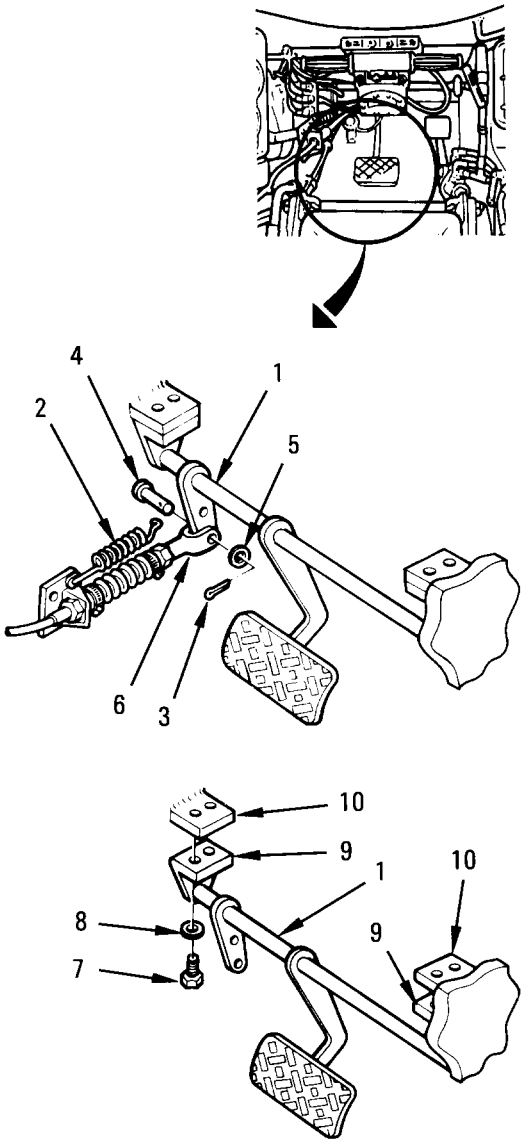
TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)
Extension, 1/4-inch drive, 6-inch (Item 71, Appendix E)
Pocket knife (Item 128, Appendix E)

SUPPLIES: Cotter pin (Item 302, Appendix G)
Gasket (Item 49, Appendix G)
Rubber hose (Item 84, Appendix G)
Wiping rag (Item 94, Appendix C)

EQUIPMENT CONDITION: Fuel transferred from both front fuel tanks to rear fuel tanks with fuel at least 11 inches (27.94 cm) below top of front fuel tanks (TM 5-5420-232-10), or
Front fuel tanks drained with fuel at least 11 inches (27.94 cm) below top of front fuel tanks (page 7-19)

REMOVAL:

1. REMOVE SERVICE BRAKE MANUAL CONTROL LEVER (1).
   a. Remove helical spring (2) from lever (1).
   b. Remove cotter pin (3) from straight pin (4). Remove washer (5) and pull pin (4) from clevis (6) and lever (1).
   c. Remove clevis (6) from lever (1).
   d. Hold lever (1) with one hand. Remove four screws (7) and washers (8) from two angle brackets (9) and welded brackets (10).
   e. Pull lever (1) with two brackets (9) off brackets (10).



Go on to Sheet 2

2w1746

LEFT REAR IN-TANK ELECTRICAL FUEL PUMP, FUEL LEVEL LIQUID TRANSMITTER, PRESSURE FLUID FILTER, AND FUEL COVER ASSEMBLY REPLACEMENT (Sheet 1 of 11)

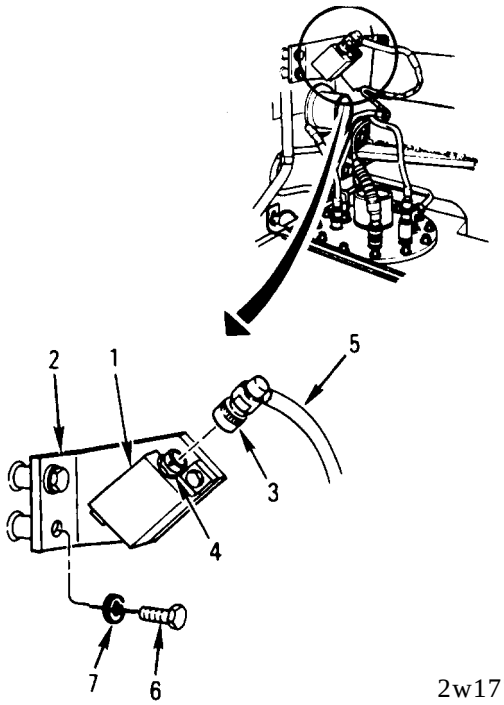
TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)
Extension, 3/8-inch drive, 6-inch (Item 77, Appendix E)
Extension, 3/8-inch drive, 12-inch (Item 75, Appendix E)
Multiple folding rule, 3-foot (Item 193, Appendix E)
Ratchet handle, 3/8-inch drive (Item 109, Appendix E)
Socket, 3/8-inch drive, 3/8-inch (Item 232, Appendix E)
Socket, 3/8-inch drive, 9/16-inch (Item 235, Appendix E)
Torque driver wrench, 0-90 kg-cm (Item 320, Appendix E)
Torque wrench, 0-175 ft-lb (Item 324, Appendix E)
Torque wrench, 0-600 in-lb (Item 332, Appendix E)

SUPPLIES: Acid swabbing brush (Item 26, Appendix C)
Gasket (Item 57, Appendix G)
Lockwasher (Item 123, Appendix G) (7 required)
Preformed packing (Item 241, Appendix G)
Preformed packing (Item 234, Appendix G) (2 required)
Preformed packing (Item 206, Appendix G)
Preformed packing (Item 208, Appendix G)
Nonelectric wire (Item 133, Appendix C)
Sealing compound (Item 103, Appendix C)
Sealing compound primer (Item 91, Appendix C)
Self-locking nut (Item 153, Appendix G) (6 required)
Self-locking nut (Item 172, Appendix G)
Self-locking nut (Item 176, Appendix G) (12 required)

EQUIPMENT CONDITION: Vehicle power disconnected (page 9-159)
Precleaner air exhaust hose assembly removed (page 6-77)

REMOVAL:

1. REMOVE FIRE SENSOR (1) AND ANGLE BRACKET (2).
   a. Disconnect plug connector (3) from receptacle connector (4). Move cable (5) aside.
   b. Remove two screws (6) and lockwashers (7) from bracket (2). Set sensor (1) with bracket (2) aside.



Go on to Sheet 2

2w1777

LEFT REAR IN-TANK ELECTRICAL FUEL PUMP, FUEL LEVEL LIQUID TRANSMITTER, PRESSURE FLUID FILTER, AND FUEL COVER ASSEMBLY REPLACEMENT (Sheet 2 of 11)

2. DISCONNECT THREE CABLES (1, 2) AND REMOVE TUBE ASSEMBLY (3).

   a. Disconnect three plug connectors (4) from two receptacle connectors (5) and pressure switch receptacle connector (6) on cover (7). Move harness cable (2) aside and out of the way.

   b. Disconnect tube nut (8) from elbow (9).

   c. Pull tube (3) off elbow (9).

NOTE

If cover (7) is being removed for access only, go to step 4.

3. DISCONNECT TUBE NUT (10) FROM ELBOW (11). PULL TUBE (12) OFF ELBOW (11).

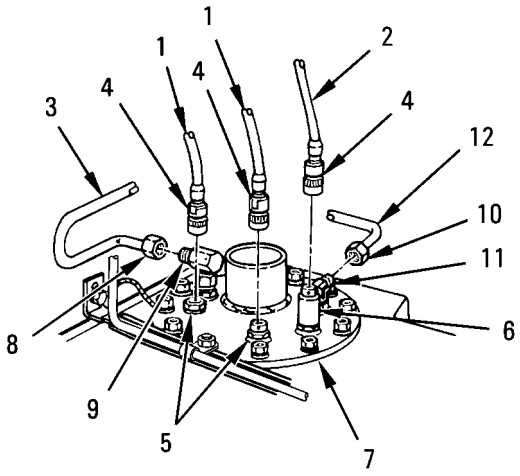
4. REMOVE SWITCH (13), JUMPER ASSEMBLY (14), AND ANGLE BRACKET INSULATOR (15).

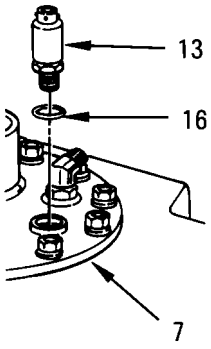
   a. Remove switch (13) and preformed packing (16) from cover (7). Remove packing (16) from switch (13).

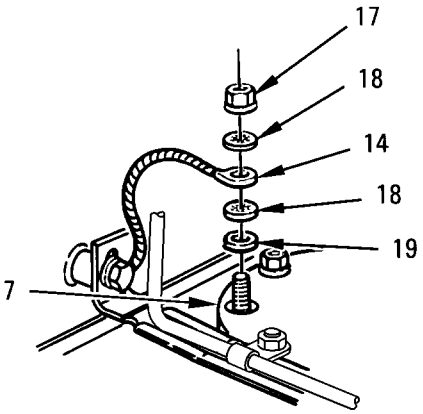
   b. Remove self-locking nut (17), two lockwashers (18), jumper (14), and washer (19) from cover (7).

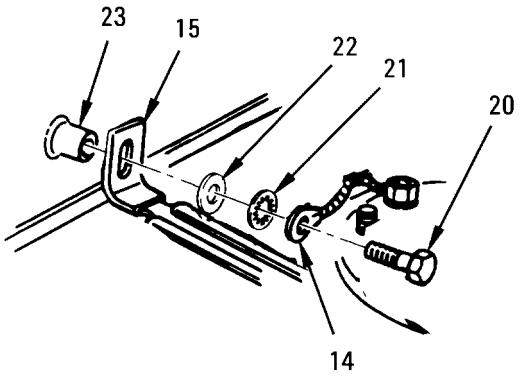
   c. Remove screw (20), jumper (14), lockwasher (21), and washer (22) from boss (23) on hull wall.

   d. Move insulator (15) off cover (7) and out of the way.









Go on to Sheet 3

LEFT REAR IN-TANK ELECTRICAL FUEL PUMP, FUEL LEVEL LIQUID TRANSMITTER, PRESSURE FLUID FILTER, AND FUEL COVER ASSEMBLY REPLACEMENT (Sheet 9 of 11)

CAUTION

Cover (1) has pump (2) and transmitter (3) mounted to it. Transmitter (3) and pump (2) can be damaged if cover (1) is not carefully lowered into fuel tank (4).

NOTE

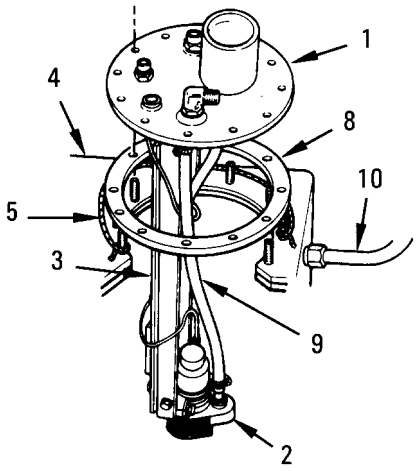
Sealing compound dries very fast. All parts must be assembled within 10 minutes after putting on sealant.

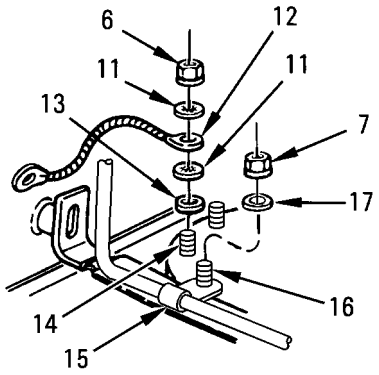
7. INSTALL COVER (1). REMOVE WIRE (5) AS REQUIRED. CROSS TORQUE 12 NUTS (6, 7) BETWEEN 360-430 LB-IN (41-48 N•m).
   a. Remove gasket (8) from fuel tank (4).
   b. Apply primer on both sides of gasket (8) and let dry.
   c. Apply sealing compound on both sides of gasket (8) with brush.
   d. Put gasket (8) in place on fuel tank (4).
   e. Put cover (1) in fuel tank (4) with large tube (9) facing the front of tank.
   f. Pull tube (10) out of the way and lower cover (1) with pump (2) and transmitter (3) in place on gasket (8) and fuel tank (4).
   g. Apply primer and sealing compound to threads of 12 studs (16). Put two new lockwashers (11), jumper (12), and washer (13) on stud (14). Start new nut (6) on stud (14) by hand. Install clamp (15) on stud (16). Start remaining 11 new nuts (7) and washers (17) on studs (16) by hand.

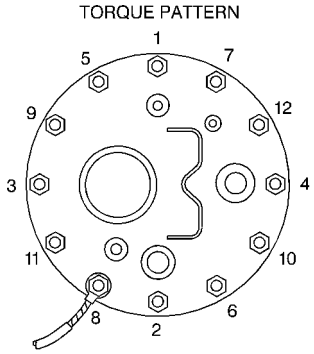
NOTE

If wire (5) was used on any studs (14, 16), do step h.

   h. Gently pry up cover (1) and pull wire (5) off studs (14, 16). Put cover (1) in place.
   i. Install and cross torque nuts (6, 7) between 360-430 lb-in (41-48 N•m).







Go on to Sheet 10

2w3654

LEFT REAR IN-TANK ELECTRICAL FUEL PUMP, FUEL LEVEL LIQUID TRANSMITTER, PRESSURE FLUID FILTER, AND FUEL COVER ASSEMBLY REPLACEMENT (Sheet 10 of 11)

8. INSTALL INSULATOR (1) AND TORQUE SCREW (2) BETWEEN300-360 LB-IN (34-41 N•m). INSTALL TUBE (3).

   a. Move insulator (1) in place on fuel tank (4). Install screw (2), jumper (5), new lockwasher (6), washer (7), and insulator (1) in boss (8) on hull wall.

   b. Torque screw (2) between 300-360 lb-in (34-41 N•m).

   c. Put tube (3) in place on elbow (9). Connect nut (10) on elbow (9).

9. TIGHTEN NUT (10) ON ELBOW (9). TIGHTEN NUT (11).

WARNING

Make sure connector 2W159-P5 (12) is properly installed on pump connector 2S153-J1 (13). Improper installation may result in overtransfer of fuel and a fire.

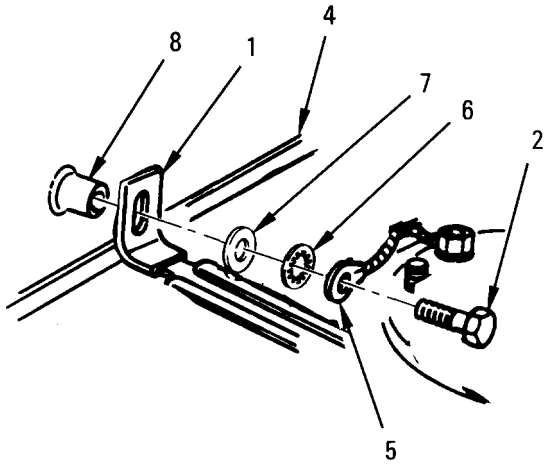
10. INSTALL TUBE (14) AND SWITCH (15). CONNECT THREE CABLES (16).

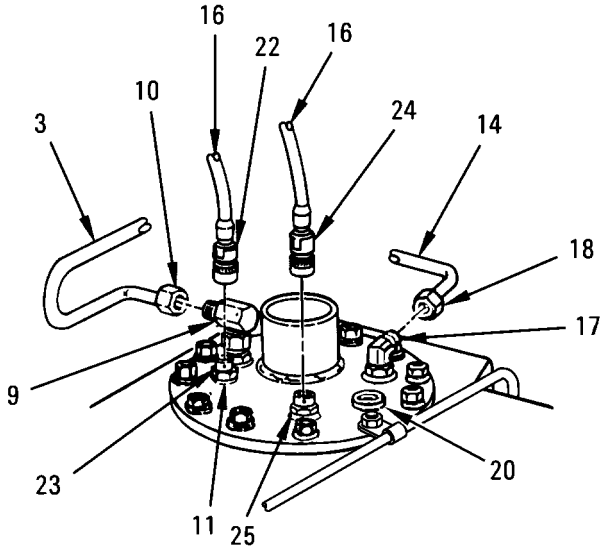
    a. Unscrew elbow (17) until tube (14) can be connected on elbow (17). Put tube (14) on elbow (17) and connect nut (18) on elbow (17).

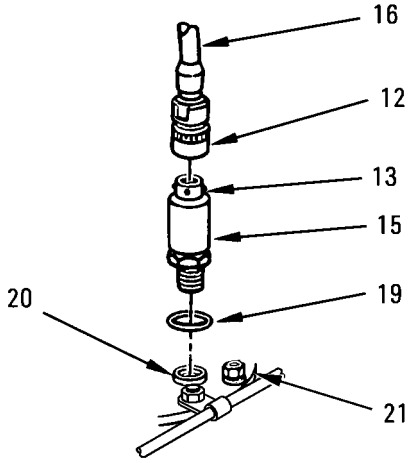
    b. Tighten nut (18).

    c. Install switch (15) and new packing (19) in boss (20) on cover (21).

    d. Join connector 2W159-P4 (22) to connector 2B151-J1 (23). Join connector 2W159-P3 (24) to connector 2A151-J1 (25). Join connector (12) to connector (13).





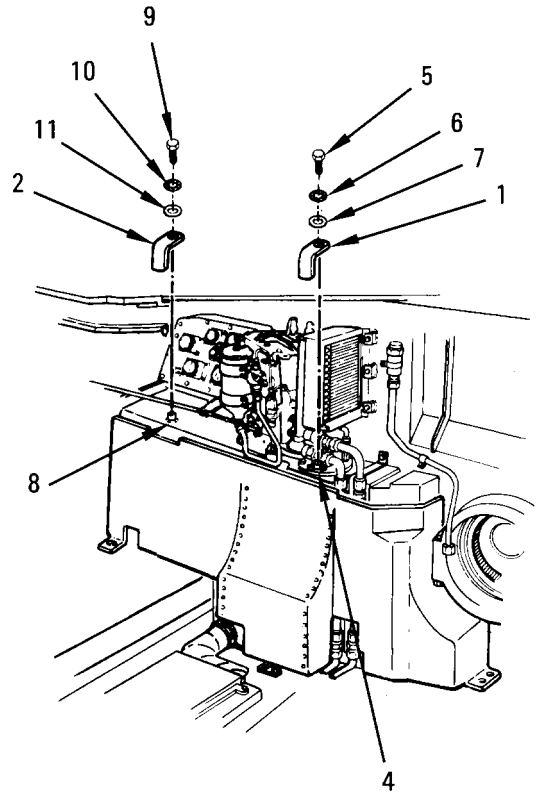


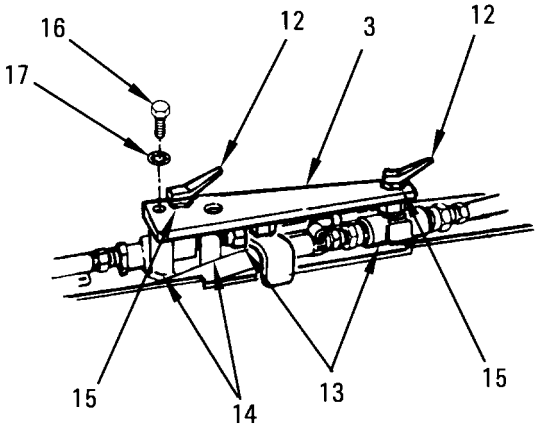
Go on to Sheet 11

2w3655

RIGHT ENGINE COMPARTMENT FUEL TANK HEAT SHIELD ASSEMBLY AND ANGLE BRACKETS REPLACEMENT (Sheet 4 of 4)

2. INSTALL BRACKETS (1, 2, 3).
   a. Put bracket (1) in place on boss (4). Install screw (5), new lockwasher (6), and washer (7) to bracket (1) and boss (4).
   b. Put bracket (2) in place on boss (8). Install screw (9), new lockwasher (10), and washer (11) to bracket (2) and boss (8).
   c. Put two handles (12) in up position. Put bracket (3) in place on two valves (13) and bosses (14), and under nuts (15).
   d. Aline bracket (3) with bosses (14). Install two screws (16) and new lockwashers (17) to bracket (3) and bosses (14).
   e. Tighten two nuts (15). Push handles (12) down.
3. INSTALL CROSSOVER HOSE HEAT SHIELD ASSEMBLY (PAGE 7-109).
4. INSTALL RIGHT SIDE LOWER REAR FIRE EXTINGUISHER TUBE ASSEMBLY (PAGE 27-16).





End of Task

2w1791

RIGHT ENGINE COMPARTMENT FUEL TANK ANGLE BRACKET INSULATORS AND CONTINUOUS THREAD STUDS REPLACEMENT (Sheet 1 of 6)

TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)
Deep style socket, 3/8-inch drive, 9/16-inch (Item 253, Appendix E)
Extension, 3/8-inch drive, 12-inch (Item 75, Appendix E)
Hand driven dispensing pump (Item 63, Appendix E)
Machinist's vise, 4-inch wide jaws (Item 287, Appendix E)
Metal pail, 5-gallon (Item 155, Appendix E)
Ratchet handle, 3/8-inch drive (Item 109, Appendix E)
Torque wrench, 0-600 in-lb (Item 332, Appendix E)
Vise jaw caps (Item 27, Appendix E)

SUPPLIES: Lockwasher (Item 123, Appendix G)
Self-locking nut (Item 176, Appendix G)

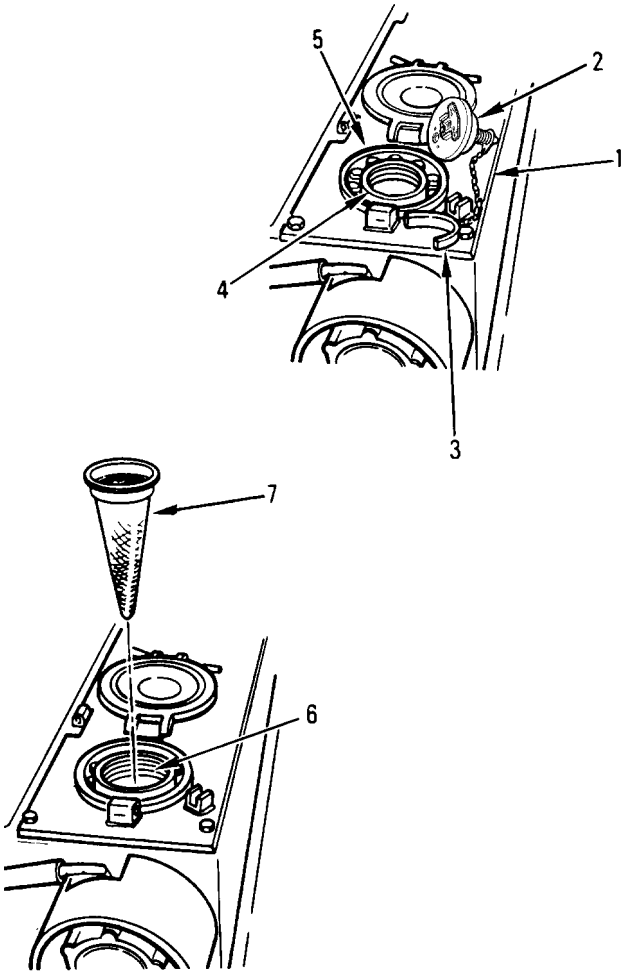
EQUIPMENT CONDITION: Right engine compartment fuel tank heat shield assembly and angle brackets removed (page 7-98)
Rear battery cover closed (TM 5-5420-232-10)
Right rear fuel filler cover opened (TM 5-5420-232-10)

REMOVAL:

NOTE

If rear fuel tanks were drained, go to step 2.

1. INSPECT FUEL LEVEL IN REAR SPONSON (1) AND PUMP FUEL INTO A PAIL AS REQUIRED.
   a. Remove filler opening cap (2). Remove cap retainer (3) from inside filler neck (4).
   b. Check fuel level in sponson (1) through fuel inlet cover opening (5). If fuel level is below level of split rings (6), go to step 2.
   c. Lift out strainer element (7). Inspect element (7) for clogs or tears. Replace as required.
   d. Pump fuel into pail until fuel level is below level of split rings (6).
   e. Put element (7) back in place in sponson (1).

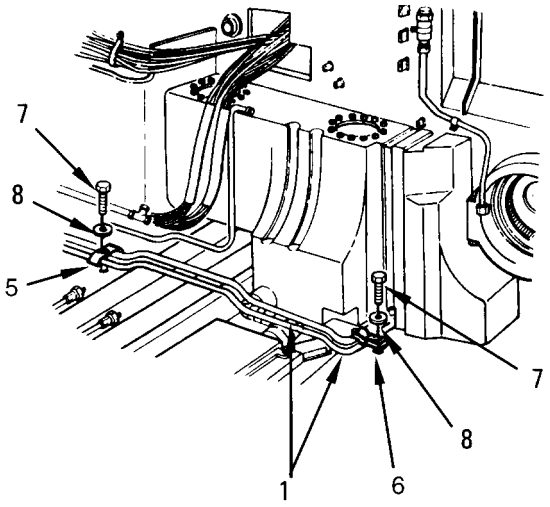


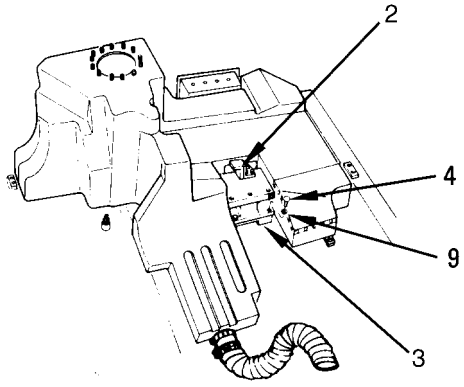
Go on to Sheet 2

2w1792

LEFT ENGINE COMPARTMENT FUEL TANK REPLACEMENT (Sheet 8 of 8)

7. SECURE TUBES (1). INSTALL BRACKET (2) AND SUPPORT (3) AND TORQUE FOUR SCREWS (4) BETWEEN 150-165 LB-FT (204-224 N•m).
   a. Put four straps (5) and two clamps (6) on two tubes (1). Install six screws (7) and washers (8) to straps (5) and clamps (6).
   b. Put bracket (2) and support (3) in place on engine compartment floor.
   c. Install four screws (4) and washers (9) to support (3) and engine compartment. Torque screws (4) between 150-165 lb-ft (204-224 N•m).
8. INSTALL NUMBER 7 LEFT AND RIGHT SHOCK ABSORBER HOUSING TORSION BAR COVER (PAGE 13-56).
9. CHECK TORQUE ON LEFT AND RIGHT FINAL DRIVE (PAGE 11-17).
10. INSTALL LAUNCHER POWER UNIT (LPU) HULL FUEL LINES (PAGE 7-261).
11. INSTALL LAUNCHER POWER UNIT (LPU) HYDRAULIC CASE DRAIN TUBE ASSEMBLIES AND NIPPLE (PAGE 23-91).
12. INSTALL LEFT REAR IN-TANK ELECTRICAL FUEL PUMP, FUEL LEVEL LIQUID TRANSMITTER, PRESSURE FLUID FILTER, AND FUEL COVER ASSEMBLY (PAGE 7-92).
13. INSTALL HEAT EXCHANGER PRESSURE AND RETURN HOSE ASSEMBLY AND TUBE ASSEMBLY (PAGE 23-17).
14. GROUND HOP POWERPACK (PAGE 4-37).
15. FILL HYDRAULIC RESERVOIR (TM 5-5420-232-10).
16. PRESSURIZE AND BLEED HYDRAULIC SYSTEM AND CHECK FOR LEAKS (PAGE F-18).
17. PURGE FUEL SYSTEM (PAGE 7-4).
18. CONNECT LEFT AND RIGHT TRACK ASSEMBLIES (TM 5-5420-232-10).





End of Task

sepw3685

RIGHT SPONSON ENGINE FUEL TANK REPLACEMENT (Sheet 1 of 4)

TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)
Hand sealant gun (Item 95, Appendix E)
Hoist, 500-pound capacity (Item 112, Appendix E)
Industrial goggles (Item 92, Appendix E)
Measuring tape, 50-foot (Item 266, Appendix E)
Plastic utility pail, 5-quart (Item 157, Appendix E)
Webbing strap (Item 261, Appendix E)
Wire brush (Item 24, Appendix E)

SUPPLIES: If insulation is replaced, or fit between new fuel tank and sponson is loose, you will need:
Adhesive (Item 2, Appendix C)
Insulation (Item 86, Appendix G) (as required)
Methyl-isobutyl-ketone (Item 79, Appendix C)
Pad (Item 272, Appendix G) (as required)
Rubber sheet (Item 432, Appendix G) (as required)
Rubber sheet (Item 431, Appendix G) (as required)
Rubber sheet (Item 430, Appendix G) (as required)
Rubber sheet (Item 429, Appendix G) (as required)
Rubber sheet (Item 439, Appendix G) (as required)
Rubber sheet (Item 438, Appendix G) (as required)
Rubber sheet (Item 437, Appendix G) (as required)
Rubber sheet (Item 436, Appendix G) (as required)
Rubber sheet (Item 427, Appendix G) (as required)
Rubber sheet (Item 440, Appendix G) (as required)
Rubber sheet (Item 441, Appendix G) (as required)
Rubber sheet (Item 435, Appendix G) (as required)
Special nonmetallic pad (Item 276, Appendix G) (as required)
White marking chalk (Item 31, Appendix C)
Wiping rag (Item 94, Appendix C)

PERSONNEL: Two

EQUIPMENT CONDITION: Right sponson fuel tank access cover removed (page 7-122)
Vehicle power disconnected (page 9-159)
Right sponson fuel tank vent adapter and access cover removed (page 7-128)
Rear fuel tank strainer element removed (page 7-120)
Right sponson tank fuel transfer preformed hose removed (page 7-79)

Go on to Sheet 2

FUEL TRANSFER HOSE ASSEMBLY REPLACEMENT (Sheet 1 of 1)

TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)

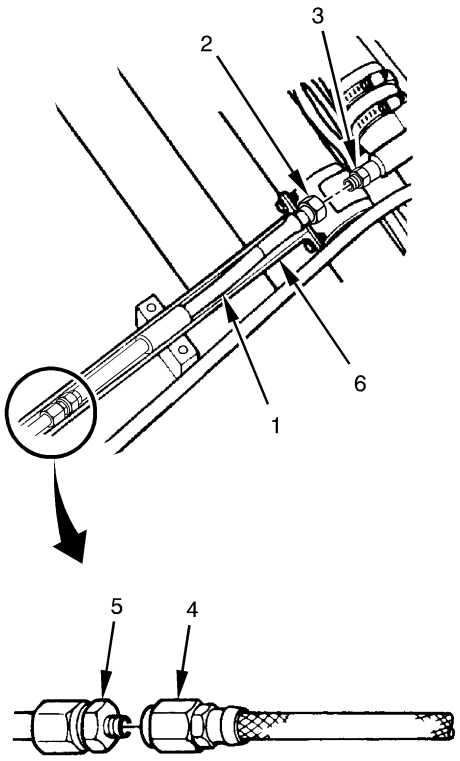
EQUIPMENT CONDITION: Floor plates 1 and 2 removed (page 19-126) and (page 19-127)

REMOVAL:

1. REMOVE HOSE (1).
   a. Disconnect hose nut (2) from straight adapter (3).
   b. Disconnect hose nut (4) from tube nipple (5). Pull hose (1) off adapter (3) and nipple (5).
2. INSPECT HOSE (1) FOR CRACKS, BUBBLES, OR SOFT SPOTS. INSPECT ALL OTHER PARTS FOR DAMAGE. REPLACE AS REQUIRED.

INSTALLATION:

1. INSTALL HOSE (1).
   a. Position hose (1) in shield (6). Connect hose nut (4) to tube nipple (5).
   b. Connect hose nut (2) to straight adapter (3).
2. INSTALL FLOOR PLATES 1 AND 2 (PAGE 19-126) AND (PAGE 19-127).



End of Task

habw4872

RIGHT FUEL TRANSFER HOSE ASSEMBLY AND FUEL LINE SHIELD REPLACEMENT (Sheet 1 of 4)

TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)
Extension, 3/8-inch drive, 12-inch (Item 75, Appendix E)
Ratchet handle, 3/8-inch drive (Item 109, Appendix E)
Socket, 3/8-inch drive, 7/16-inch (Item 234, Appendix E)

SUPPLIES: Rubber tubing, 2-inch (Item 466, Appendix G)

EQUIPMENT CONDITION: Right front fuel tank drained (page 7-19)
Vehicle power disconnected (page 9-159)
Hull Mission Processor Unit (HMPU) removed (page 9-112)
Remote Switching Module (RSM) 2A103 and Analog Input Module (AIM) 2A110 mounting bracket removed (page 9-101)
Crew floor plate (No. 1) removed (page 19-126)

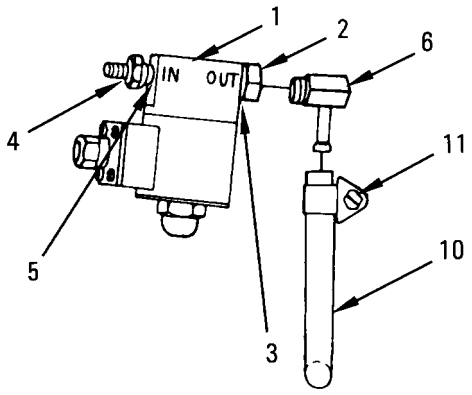
REFERENCES: TM 5-5420-232-10

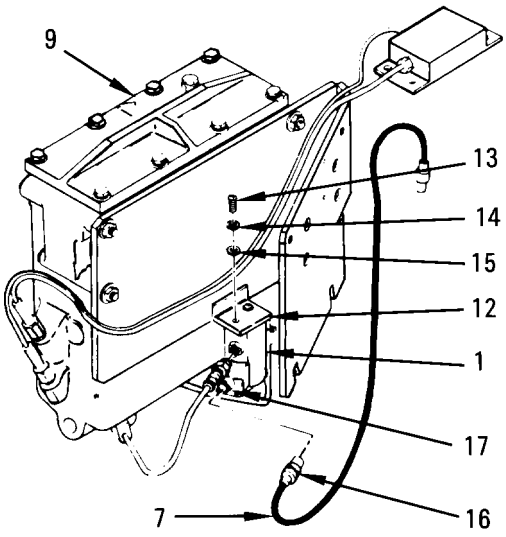
Go on to Sheet 2

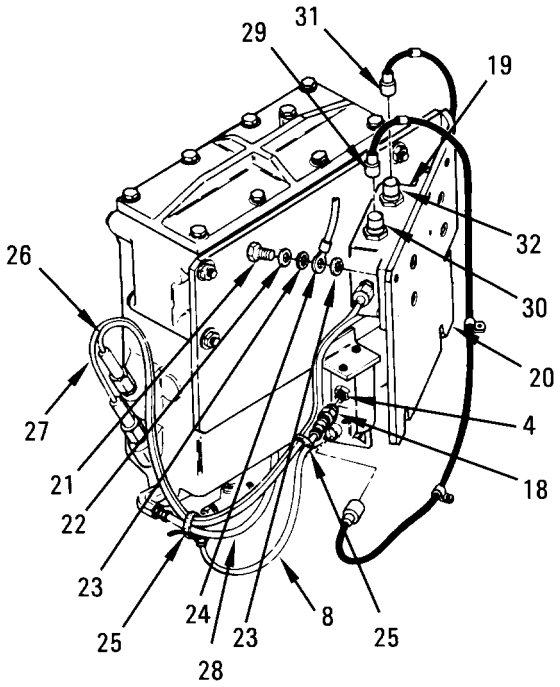
SOLENOID VALVE REPLACEMENT (Sheet 3 of 3)

INSTALLATION:

1. ASSEMBLE VALVE (1).
   a. Put valve (1) in vise. Install bushing (2) in outlet port (3) and adapter (4) in inlet port (5).
   b. Install elbow (6) on bushing (2).
2. INSTALL VALVE (1). CONNECT CABLE (7) AND TUBE (8).
   a. Lower valve (1) behind water separator (9) until end of hose (10) touches elbow (6). Put hose (10) on elbow (6) and tighten screw (11).
   b. Put valve (1) in place under bracket (12).
   c. Install two screws (13), new lockwashers (14), and washers (15) in bracket (12).
   d. Join connector 2W161-P2 (16) to connector (17) on valve (1).
   e. Connect nut (18) to adapter (4).
3. INSTALL MODULE (19).
   a. Aline upper right hole of bracket (20) and module (19). Loosely install one screw (21), washer (22), two new lockwashers (23), and lead (24) to module (19) and bracket (20).
   b. Aline lower left hole of bracket (20) and lower left hole of module (19). Loosely install other three screws (21), washers (22), and new lockwashers (23) to module (19) and bracket (20).
   c. Tighten four screws (21).
4. INSTALL ONE NEW STRAP (25) AROUND CABLES (26, 27) AND HOSE (28) AND OTHER NEW STRAP (25) AROUND CABLES (26, 27) AND HOSE (8).
5. JOIN CONNECTOR 2W161-P1 (29) TO CONNECTOR (30), AND CONNECTOR 2W159-8-P6 (31) TO CONNECTOR (32) ON TOP OF MODULE (19).
6. OPEN EMERGENCY ENGINE SHUTOFF (TM 5-5420-232-10).
7. PURGE FUEL SYSTEM (PAGE 7-4).







End of Task

2w3072

WATER SEPARATOR REPLACEMENT (Sheet 1 of 3)

TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)

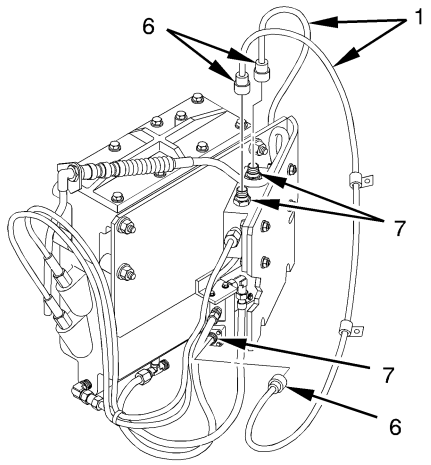
SUPPLIES: Lockwasher (Item 117, Appendix G) (2 required)

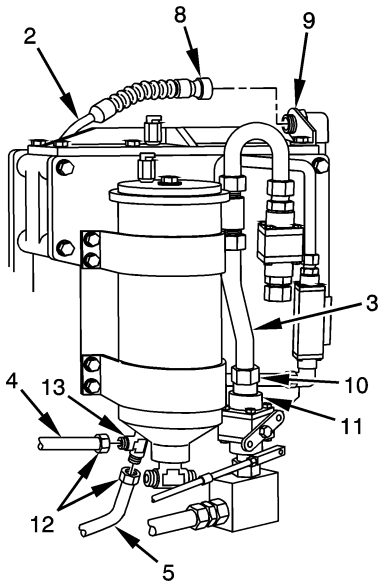
PERSONNEL: Two

EQUIPMENT CONDITION: Tube assembly (bottom of stop-check valve to fluid filter bottom tee) removed (page 7-232)

REMOVAL:

1. DISCONNECT CABLES (1, 2) AND TUBES (3, 4, 5).
   a. Disconnect three plug connectors (6) from receptacle connectors (7).
   b. Disconnect plug connector (8) from receptacle connector (9).
   c. Disconnect tube nut (10) from adapter (11).
   d. Disconnect two tube nuts (12) from tee (13).





Go on to Sheet 2

2h4099

WATER SEPARATOR REPLACEMENT (Sheet 2 of 3)

e. Disconnect tube nut (1) from tee (2).

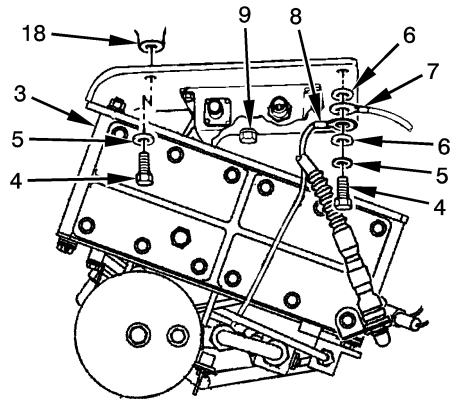
2. REMOVE SEPARATOR (3). INSPECT PARTS FOR DAMAGE. REPLACE AS REQUIRED.

a. Remove two screws (4), washers (5), lockwashers (6), and lug terminals (7, 8).

b. Loosen two screws (9). Lift separator (3) up and off screws (9) and tilt separator (3) until clamp screw (10) can be reached.

c. Loosen screw (10) on drain hose (11). Pull hose (11) off solenoid valve elbow (12). Set separator (3) aside.

d. Inspect other parts for damage. Replace as required.



INSTALLATION:

1. INSTALL SEPARATOR (3).

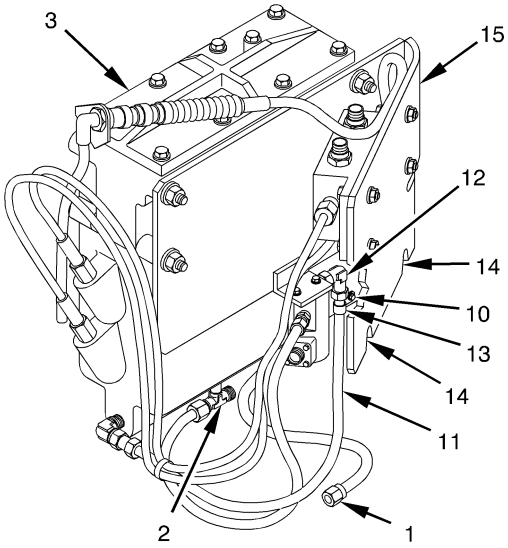
a. Hold separator (3) in place so that tube (11) will reach elbow (12). Put tube (11) and clamp (13) in place on elbow (12). Tighten screw (10).

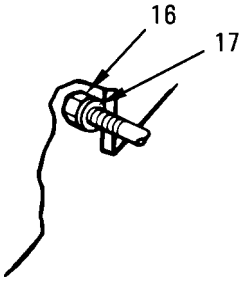
b. Put separator (3) in place against hull wall so that two slots (14) of bracket (15) slide behind heads of two screws (16) and behind washers (17).

c. Install screw (4) and washer (5) in bracket (15) and boss (18).

d. Put washer (5), one new lockwasher (6), two terminals (7, 8), and other new lockwasher (6) over threads of screw (4). Install screw (4) in bracket (15) and boss (18).

e. Tighten two screws (16).



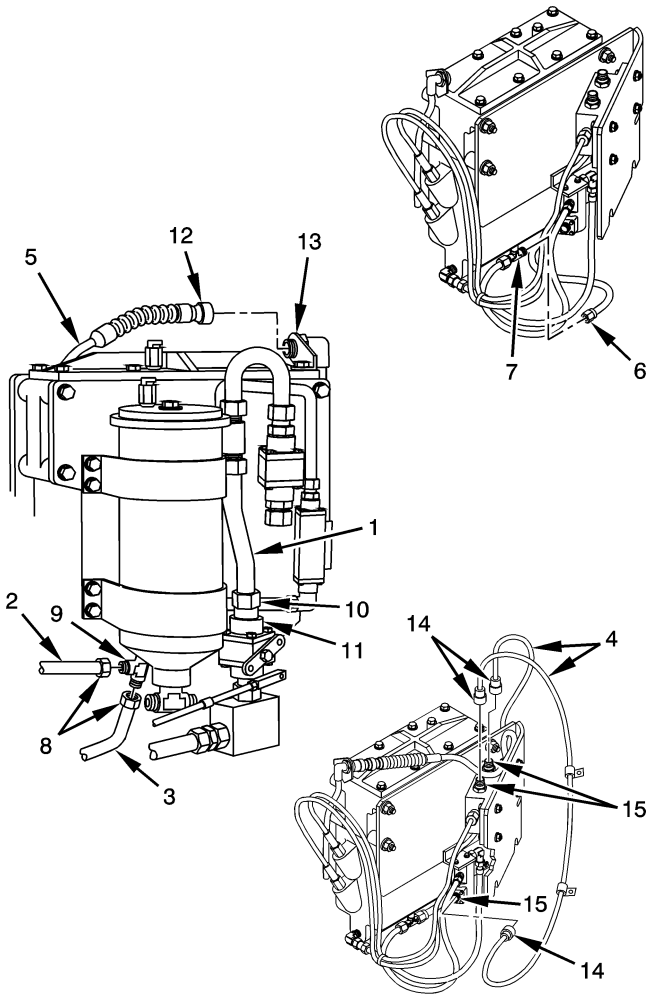


Go on to Sheet 3

2h3074

WATER SEPARATOR REPLACEMENT (Sheet 3 of 3)

2. CONNECT TUBES (1, 2, 3) AND CABLES (4, 5).
   a. Connect nut (6) to tee (7) and two nuts (8) to tee (9).
   b. Connect nut (10) to adapter (11).
   c. Screw connector (12) on connector (13) and three connectors (14) on connectors (15).
3. INSTALL TUBE ASSEMBLY (BOTTOM OF STOP-CHECK VALVE TO FLUID FILTER BOTTOM TEE) (PAGE 7-232).



End of Task

ELECTRICAL CONNECTOR ANGLE BRACKET REPLACEMENT (Sheet 1 of 2)

TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)
Ratchet handle, 3/8-inch drive (Item 109, Appendix E)
Socket, 3/8-inch drive, 7/16-inch (Item 234, Appendix E)

SUPPLIES: Lockwasher (Item 117, Appendix G) (as required)
Lockwasher (Item 111, Appendix G) (as required)

EQUIPMENT CONDITION: Both battery covers opened (TM 5-5420-232-10)
Top deck right grille doors opened (TM 5-5420-232-10)

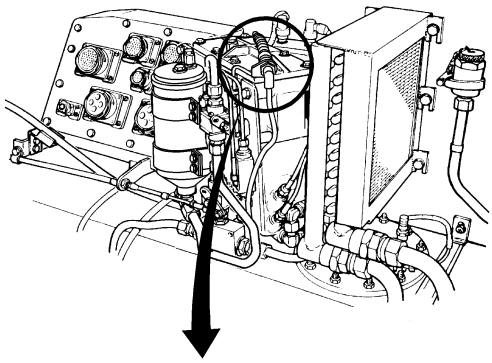
Go on to Sheet 2

2h4100

ELECTRICAL CONNECTOR ANGLE BRACKET REPLACEMENT (Sheet 2 of 2)

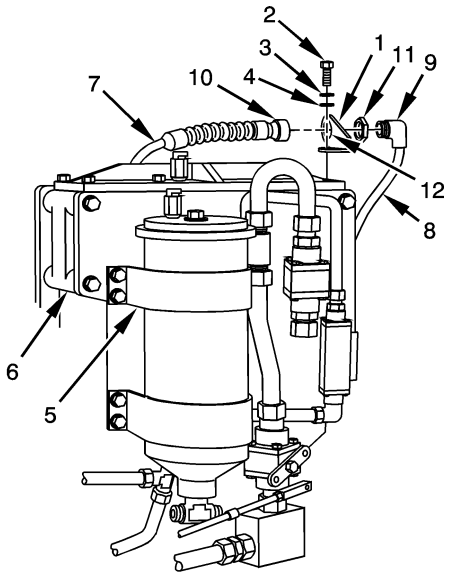
REMOVAL:

1. REMOVE BRACKET (1).
   a. Remove screw (2), lockwasher (3), and washer (4).
   b. Remove bracket (1) from strap (5). Pull bracket (1) up and away from water separator (6) as far as cables (7, 8) will allow.
   c. Disconnect plug connector (9) from receptacle connector (10). Remove nut (11) from connector (10). Pull connector (10) out of bracket (1).
2. INSPECT PARTS FOR DAMAGE. REPLACE AS REQUIRED.



INSTALLATION:

1. INSTALL BRACKET (1).
   a. Put connector (10) in hole (12) of bracket (1). Install nut (11) to connector (10).
   b. Join connectors (9, 10).
   c. Aline hole in bracket (1) with top hole in strap (5). Install screw (2), new lockwasher (3), and washer (4) in bracket (1) and strap (5).
2. CLOSE TOP DECK RIGHT GRILLE DOORS (TM 5-5420-232-10).
3. CLOSE BOTH BATTERY COVERS (TM 5-5420-232-10).



End of Task

2h4101

TUBE ASSEMBLY (BOTTOM OF STOP-CHECK VALVE TO FLUID FILTER BOTTOM TEE) REPLACEMENT (Sheet 1 of 2)

TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)

SUPPLIES: Cotter pin (Item 296, Appendix G)

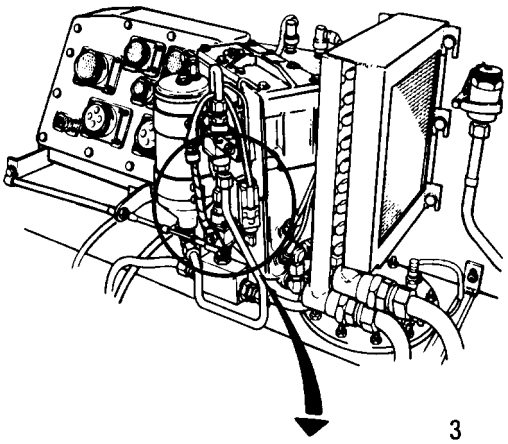
EQUIPMENT CONDITION: Powerpack removed (page 4-12)
Emergency engine shutoff closed (TM 5-5420-232-10)
Water separator drained (page 7-212)

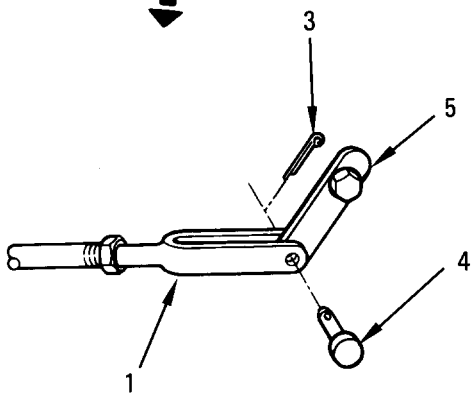
REMOVAL:

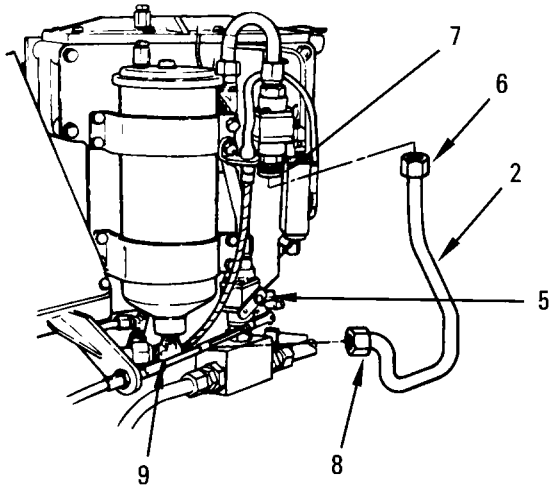
1. DISCONNECT ROD END CLEVIS (1) FOR ACCESS AND REMOVE TUBE (2).
   a. Remove cotter pin (3) from straight pin (4). Pull pin (4) out of clevis (1) and crank (5).
   b. Disconnect tube nut (6) from adapter (7) and tube nut (8) from tee (9).
   c. Pull tube (2) away from adapter (7) and tee (9).
2. INSPECT PARTS FOR DAMAGE. REPLACE AS REQUIRED.

INSTALLATION:

1. INSTALL TUBE (2). CONNECT CLEVIS (1).
   a. Loosely connect nut (8) on tube (2) to tee (9).
   b. Connect nut (6) to adapter (7). Tighten nut (8) to tee (9).
   c. Put clevis (1) in place on crank (5). Put pin (4) through holes in clevis (1) and crank (5). Install new cotter pin (3) in pin (4).







Go on to Sheet 2

2w3705

WATER SEPARATOR MOUNTING BRACKET AND FLUID FILTER REPLACEMENT (Sheet 1 of 4)

TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)

SUPPLIES: Lockwasher (Item 139, Appendix G) (4 required)
Lockwasher (Item 122, Appendix G) (6 required)

EQUIPMENT CONDITION: Water separator control module removed (page 7-217)
Primary fluid filter removed (page 7-236)
Fuel outlet hose assembly removed (page 7-220)

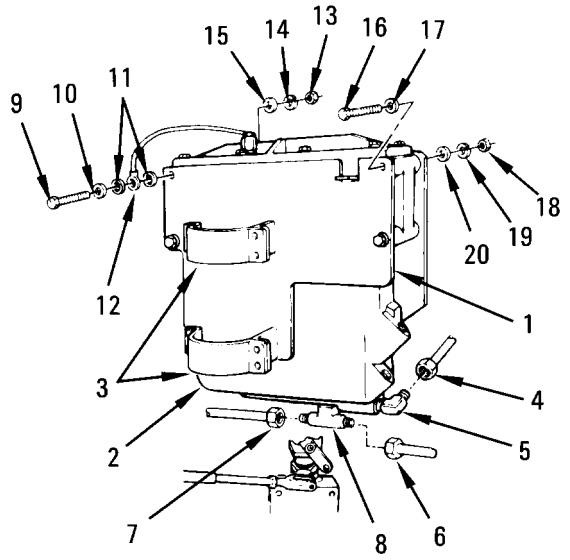
REFERENCES: TM 5-5420-232-10

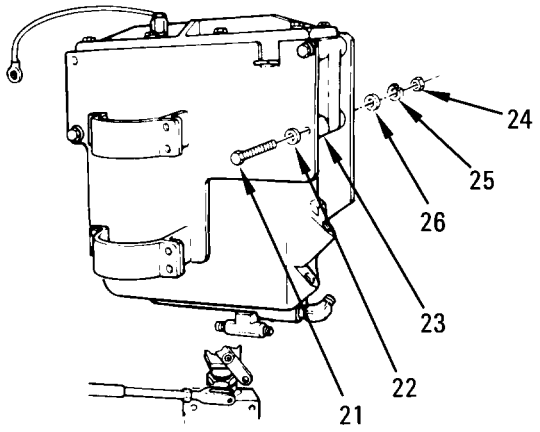
REMOVAL:

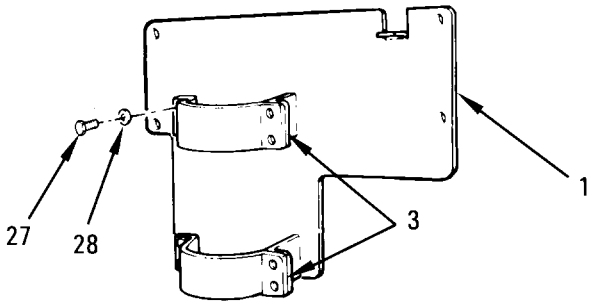
1. REMOVE BRACKET (1) AND FILTER (2). REMOVE TWO STRAPS (3).
   a. Disconnect hose nut (4) from elbow (5) and tube nuts (6, 7) from tee (8).
   b. Remove bolt (9), washer (10), two lockwashers (11), electrical lead (12), nut (13), lockwasher (14), and washer (15).
   c. Remove bolt (16), washer (17), nut (18), lockwasher (19), and washer (20).
   d. Remove two bottom bolts (21), washers (22), spacers (23), nuts (24), lockwashers (25), and washers (26). Remove bracket (1) and filter (2).
   e. Remove four screws (27) and lockwashers (28) from two straps (3) and bracket (1). Remove straps (3) from bracket (1).

NOTE

This is end of task if filter (2) was removed for access only.







Go on to Sheet 2

2w3130

WATER SEPARATOR MOUNTING BRACKET AND FLUID FILTER REPLACEMENT (Sheet 2 of 4)

2. REMOVE ELBOW (1), TEE (2), AND ADAPTER (3) FROM FILTER (4).

3. INSPECT PARTS FOR DAMAGE. REPLACE AS REQUIRED.

INSTALLATION:

NOTE

If filter (4) was removed for access only, go to step 2.

1. INSTALL ELBOW (1), TEE (2), AND ADAPTER (3) TO FILTER (4).

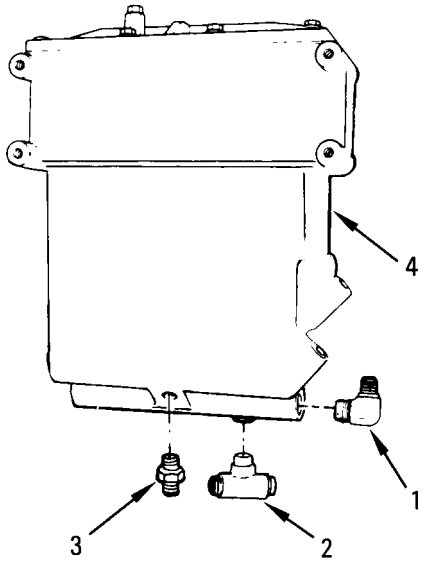
2. INSTALL TWO STRAPS (5).

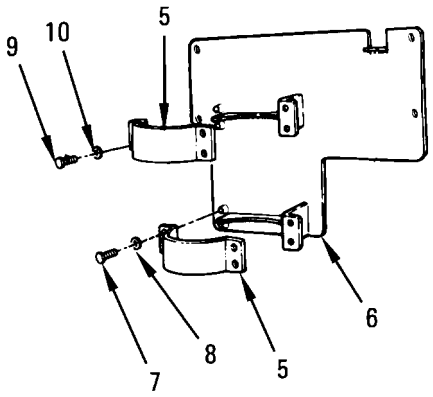
   a. Aline holes on left side of one strap (5) with holes on lower left side of front bracket (6).

   b. Install two screws (7) and new lockwashers (8) to strap (5) and bracket (6).

   c. Aline holes on left side of other strap (5) with holes on upper left side of bracket (6).

   d. Install two screws (9) and new lockwashers (10) in upper strap (5) and bracket (6).





Go on to Sheet 3

2w3131

WATER SEPARATOR ELECTRICAL LEAD OR CONTROL MODULE ELECTRICAL LEAD (JUMPER WIRE) REPLACEMENT (Sheet 1 of 2)

TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)

SUPPLIES: Lockwasher (Item 121, Appendix G) (as required)
Lockwasher (Item 139, Appendix G) (2 required)
Lockwasher (Item 122, Appendix G) (as required)

EQUIPMENT CONDITION: Both battery covers opened (TM 5-5420-232-10)
Top deck right grille doors opened (TM 5-5420-232-10)

REMOVAL:

1. REMOVE LEAD (1 OR 2).

   a. Remove screw (3), two lockwashers (4), washer (5), and leads (1, 2) from mounting bracket (6).

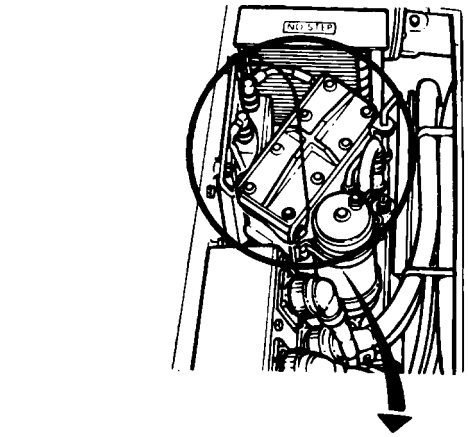
NOTE

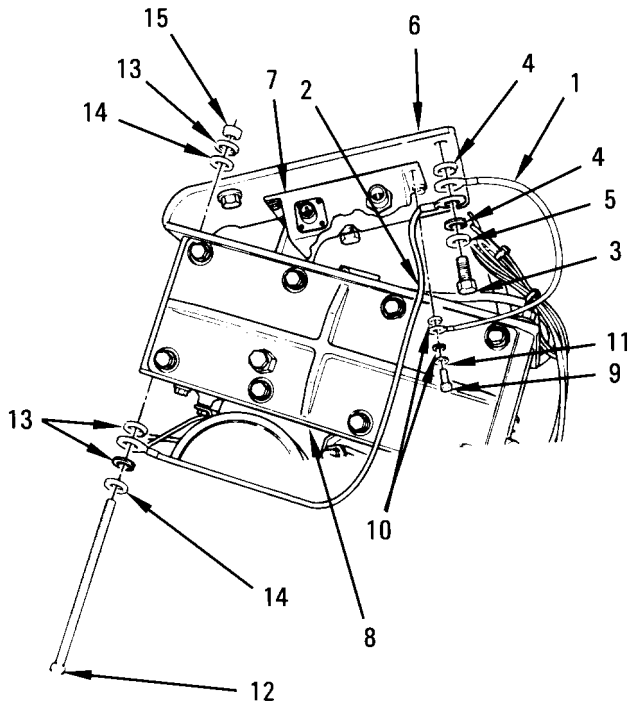
- To remove lead (1) on control module (7), do step b.
- To remove lead (2) on water separator (8), do step c.

   b. Remove screw (9), two lockwashers (10), washer (11), and lead (1) from module (7).

   c. Remove screw (12), three lockwashers (13), two washers (14), lead (2), and nut (15) from separator (8).

2. INSPECT PARTS FOR DAMAGE. REPLACE AS REQUIRED.





Go on to Sheet 2

2w3715

WATER SEPARATOR ELECTRICAL LEAD OR CONTROL MODULE ELECTRICAL LEAD (JUMPER WIRE) REPLACEMENT (Sheet 2 of 2)

INSTALLATION:

1. INSTALL LEAD (1 OR 2).

NOTE

- To install lead (1) on separator (3), do steps a and c.
- To install lead (2) on module (4), do steps b and c.

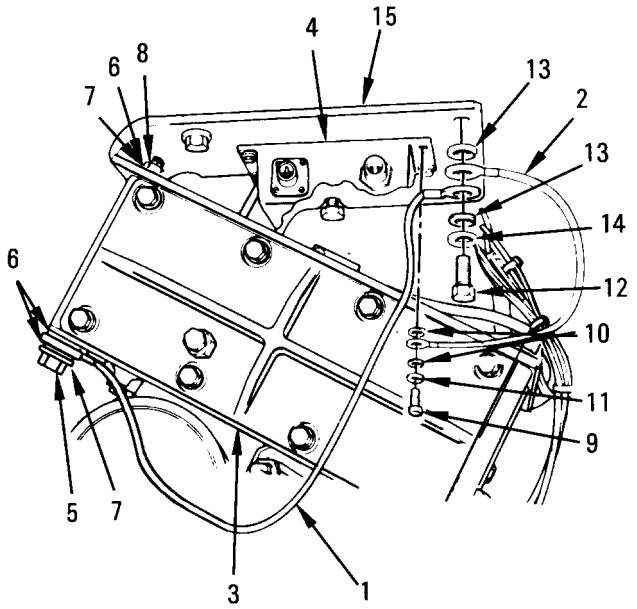
   a. Install screw (5), three new lockwashers (6), two washers (7), lead (1), and nut (8) to separator (3).

   b. Install screw (9), two new lockwashers (10), washer (11), and lead (2) to module (4).

   c. Install screw (12), two new lockwashers (13), washer (14), and leads (1, 2) to bracket (15).

2. CLOSE TOP DECK RIGHT GRILLE DOORS (TM 5-5420-232-10).

3. CLOSE BOTH BATTERY COVERS (TM 5-5420-232-10).



End of Task

2w3147

LAUNCHER POWER UNIT (LPU) FUEL SOLENOID VALVE AND PLATE REPLACEMENT (Sheet 1 of 2)

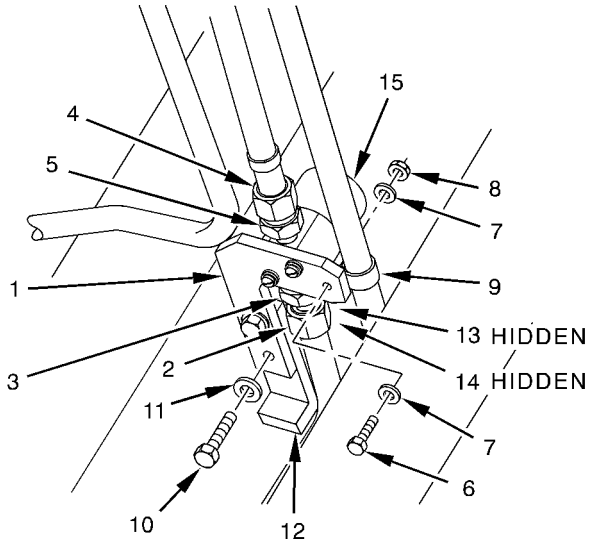
TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)

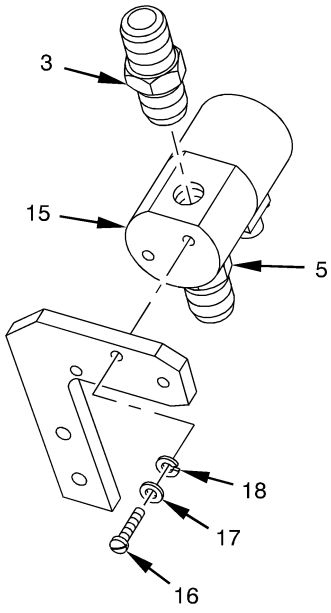
SUPPLIES: Self-locking nut (Item 175, Appendix G)
Lockwasher (Item 121, Appendix G) (2 required)
Wiping rag (Item 94, Appendix C)

EQUIPMENT CONDITION: Right engine compartment fuel tank heat shield assembly and angle brackets removed (page 7-98)
Water separator drained (page 7-212)

REMOVAL:

1. REMOVE PLATE (1).
   a. Disconnect tube nut (2) from adapter (3).
   b. Disconnect tube nut (4) from adapter (5).
   c. Remove screw (6), two washers (7), and self-locking nut (8) from clamp (9) and plate (1).
   d. Remove two screws (10) and washers (11) from plate (1) and bracket (12).
   e. Disconnect connector 2W103-7 P9 (13) from solenoid valve connector J1 (14).
   f. Remove plate (1) with attached solenoid valve (15) from tank.
2. REMOVE VALVE (15).
   a. Remove two screws (16), lockwashers (17), and washers (18) from valve (15) and plate (1).
   b. Remove two adapters (3, 5) from valve (15).
3. INSPECT PARTS FOR DAMAGE. REPLACE AS REQUIRED.





INSTALLATION:

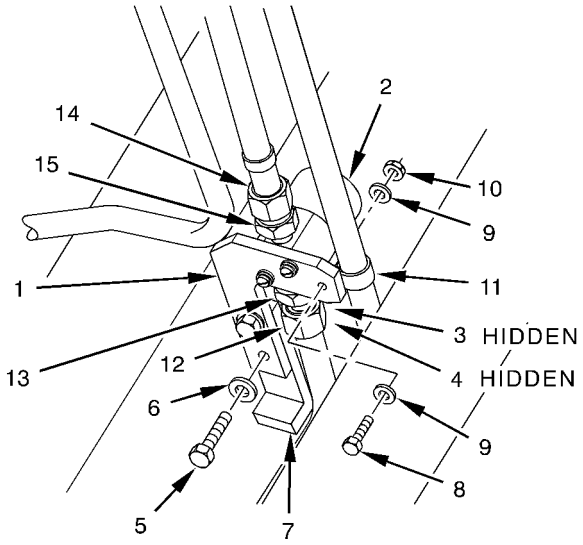
1. INSTALL VALVE (15).
   a. Install two adapters (3, 5) on valve (15).
   b. Install two screws (16), new lockwashers (17), and washers (18) on valve (15) and plate (1).

Go on to Sheet 2

3w6128

LAUNCHER POWER UNIT (LPU) FUEL SOLENOID VALVE AND PLATE REPLACEMENT (Sheet 2 of 2)

2. INSTALL PLATE (1).
   a. Position plate (1) with attached valve (2) in tank.
   b. Join connector 2W103-7 P9 (3) to valve connector J1 (4).
   c. Install two screws (5) and washers (6) on plate (1) and bracket (7).
   d. Install screw (8), two washers (9), and new self-locking nut (10) on clamp (11) and plate (1).
   e. Connect tube nut (12) to adapter (13).
   f. Connect tube nut (14) to adapter (15).
3. INSTALL RIGHT ENGINE COMPARTMENT FUEL TANK HEAT SHIELD ASSEMBLY AND ANGLE BRACKETS (PAGE 7-100).
4. PURGE FUEL SYSTEM (PAGE 7-4).



End of Task 3w6129

LOWER SIDE AIR BAFFLE REPLACEMENT (Sheet 1 of 1)

TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)
Torque wrench, 0-200 in-lb (Item 325, Appendix E)

SUPPLIES: Lockwasher (Item 117, Appendix G) (4 required)
Self-locking bolt (Item 20, Appendix G)

PERSONNEL: Two

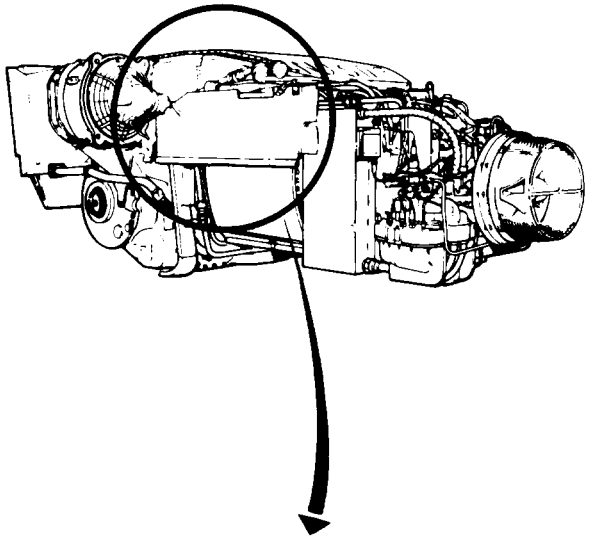
EQUIPMENT CONDITION: Powerpack removed (page 4-12)

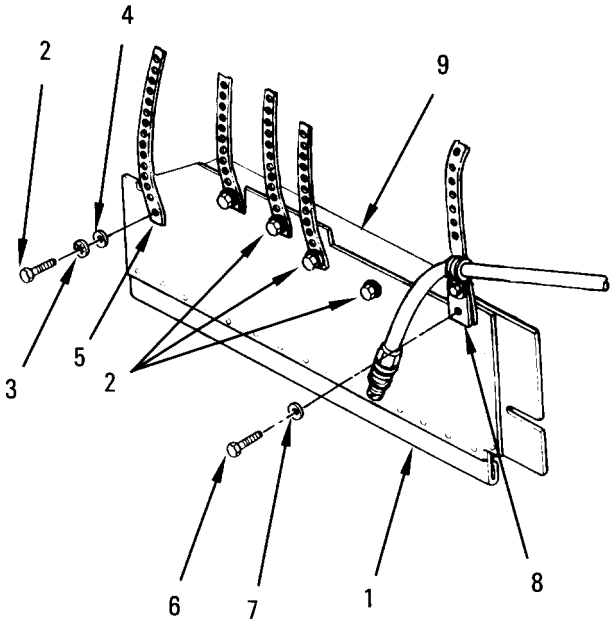
REMOVAL:

1. REMOVE BAFFLE (1).
   a. Remove four screws (2), lockwashers (3), washers (4), and three straps (5) from baffle (1).
   b. Remove self-locking bolt (6) and washer (7) from baffle (1) and bracket (8).
   c. Lift and remove baffle (1).
2. INSPECT PARTS FOR DAMAGE. REPLACE AS REQUIRED.

INSTALLATION:

1. INSTALL BAFFLE (1). TORQUE BOLT (6) BETWEEN 60-65 LB-IN (6.8-7.3 N•m).
   a. Put baffle (1) in place on engine cable duct (9).
   b. Loosely install four screws (2), new lockwashers (3), washers (4), and three straps (5) in baffle (1).
   c. Install new bolt (6) and washer (7) in bracket (8) and baffle (1).
   d. Tighten screws (2).
   e. Torque bolt (6) between 60-65 lb-in (6.8-7.3 N•m).
2. INSTALL POWERPACK (PAGE 4-24).





End of Task

2w4830

BATTERY COMPARTMENT PLAIN ENCASED SEAL REPLACEMENT (Sheet 1 of 2)

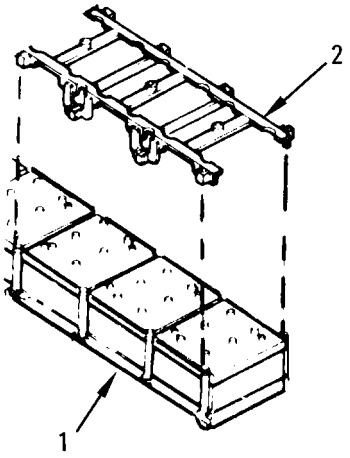
TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)
Chemical and oil protective gloves (Item 90, Appendix E)
Impermeable apron (Item 15, Appendix E)
Industrial goggles (Item 92, Appendix E)

SUPPLIES: Self-locking nut (Item 175, Appendix G) (4 required)

PERSONNEL: Two

EQUIPMENT CONDITION: Powerpack removed (page 4-12)

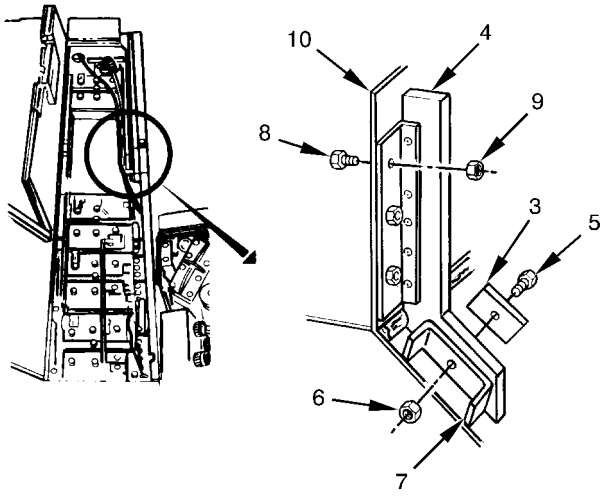
REMOVAL:



WARNING

- Be sure VEHICLE MASTER POWER switch is set to OFF before doing any work. You can get electrical shocks or burns if power is on.
- Always wear goggles, rubber gloves, and rubber apron when handling batteries (1). Battery acid can cause serious injury to skin and can ruin clothing.

1. REMOVE REAR BATTERY RETAINER (2) AND TWO STORAGE BATTERIES (1) (PAGE 9-179).
2. REMOVE LOWER SPACER PLATE (3) AND SEAL (4).
   a. Remove screw (5) and self-locking nut (6) from plate (3), lower end of seal (4), and bracket (7).
   b. Remove three screws (8) and self-locking nuts (9) from seal (4) and battery well wall (10). Remove seal (4).
3. INSPECT PARTS FOR DAMAGE. REPLACE AS REQUIRED.



Go on to Sheet 2

3w4792

LEFT OR RIGHT FAN DRIVE UNIT DOUBLE UNIVERSAL PROPELLER SHAFT REPLACEMENT (Sheet 1 of 4)

TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)
Auto adjustable wrench, 15-inch (Item 293, Appendix E)
Mechanical gear and bearing puller kit (Item 172, Appendix E)
Socket, 3/8-inch drive, 9/16-inch (Item 235, Appendix E)
Torque wrench, 0-600 in-lb (Item 332, Appendix E)

SUPPLIES: Lubricating oil (Item 76, Appendix C)
Nonelectric wire (Item 133, Appendix C)
Preformed packing (Item 264, Appendix G) (as required)
Pressure sensitive tape (Item 122, Appendix C)
Sealing compound (Item 109, Appendix C)

EQUIPMENT CONDITION: When removing right shaft:
Lower fan assembly airflow baffle removed (page 8-2)
Lower side air baffle removed (page 8-5)

NOTE

Use this task to replace left or right side. Left side is shown.

REMOVAL:

NOTE

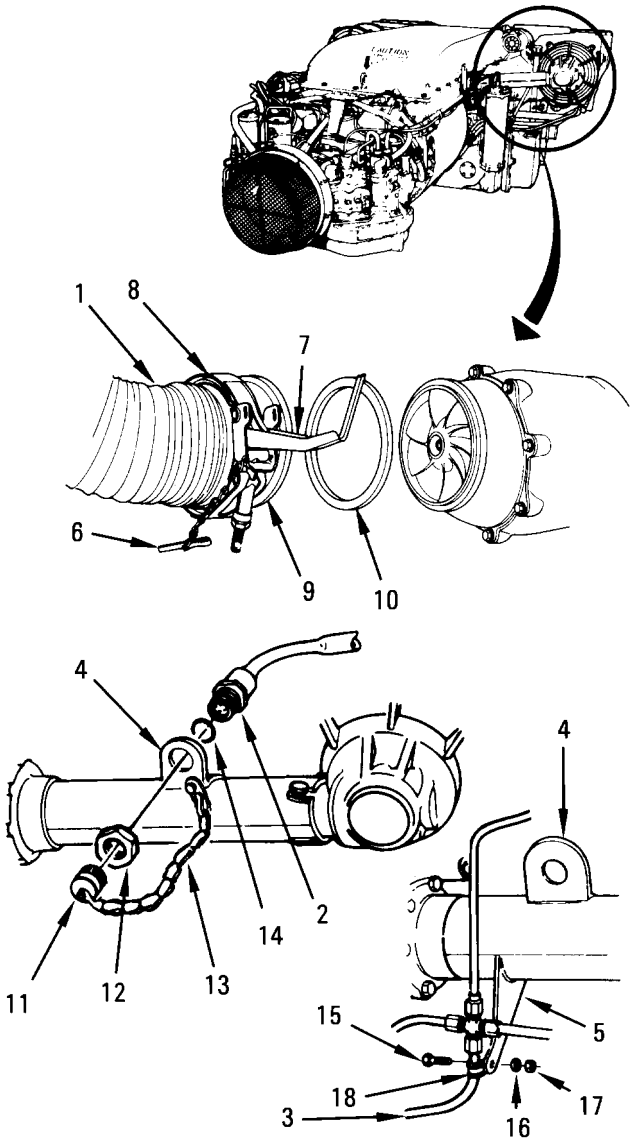
If removing right side, skip step 1.

1. DISCONNECT HOSE ASSEMBLY (1) AND REMOVE RECEPTACLE CONNECTOR (2) AND TUBE ASSEMBLY (3) FROM BRACKETS (4, 5).

   a. Pull pin (6) from lever (7). Pull up lever (7) to release clamp coupling (8). Slide coupling (8) off flange (9). Remove preformed packing (10).

   b. Remove connector cap (11) from connector (2). Remove nut (12) and chain (13) from connector (2). Pull connector (2) and packing (14) out of bracket (4). Install packing (14), chain (13), nut (12), and cap (11) on connector (2).

   c. Remove screw (15), washer (16), and nut (17) from clamp (18). Remove clamp (18) from tube (3) and bracket (5).



Go on to Sheet 2

2w4743

LEFT OR RIGHT FAN DRIVE UNIT DOUBLE UNIVERSAL PROPELLER SHAFT REPLACEMENT (Sheet 2 of 4)

2. REMOVE ACCESS COVERS (1, 2).
   a. Remove four screws (3) and washers (4) from top and bottom covers (1, 2).
   b. Slide top cover (1) away from transmission (5) and off shaft (6).
3. DISCONNECT SHAFT (6).

NOTE

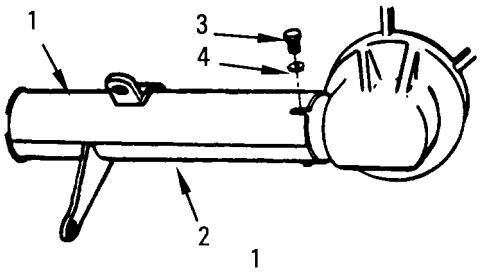
Bolts (7) may be hex head type or socket head type.

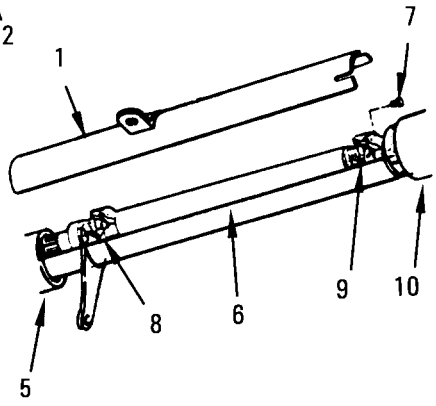
   a. Hold shaft (6) with pry bar in opening (8). Remove four bolts (7) from yoke (9).
   b. Push shaft (6) in transmission (5). Lift end of shaft (6) off angle drive unit (10) and slide other end out of transmission (5).
4. INSPECT TWO UNIVERSAL JOINTS (11, 12), SHAFT (6), AND UNIVERSAL JOINT YOKE (13) FOR DAMAGE OR WORN BEARINGS. REPAIR LEFT OR RIGHT FAN DRIVE UNIT DOUBLE UNIVERSAL PROPELLER SHAFT AS REQUIRED (PAGE 8-21).
5. TAPE UNIVERSAL JOINT (11) TO SHAFT (6) TO KEEP PARTS TOGETHER.

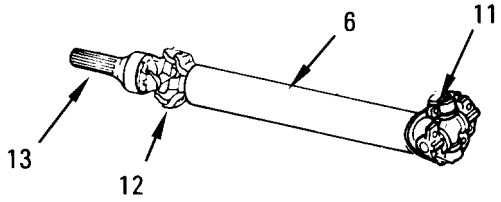
NOTE

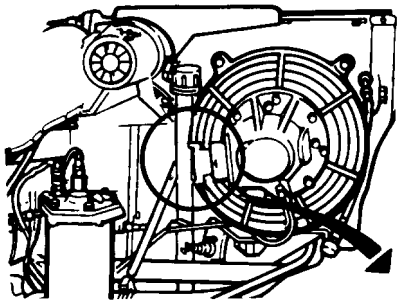
If shaft (6) is being removed for access only, skip step 6.

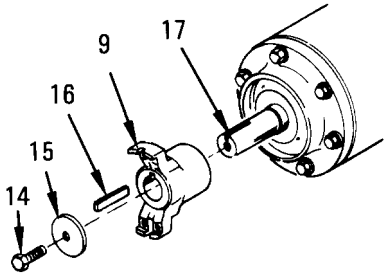
6. REMOVE YOKE (9).
   a. Remove safety wire from yoke (9) and screw (14).
   b. Hold yoke (9) with adjustable wrench and remove screw (14) and washer (15) from yoke (9).
   c. Remove yoke (9) and key (16) from shaft (17). Use mechanical puller, if necessary, to remove yoke (9).
7. INSPECT PARTS FOR DAMAGE. REPLACE AS REQUIRED.

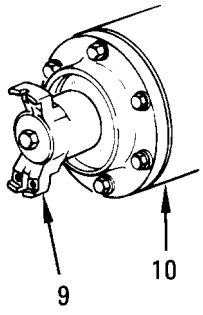












Go on to Sheet 3

2w5171

CHAPTER 9

ELECTRICAL SYSTEM MAINTENANCE

CHAPTER INDEX

WARNING

Make sure electrical harnesses/cables do not have evidence of wear, chafing, melting, cracking, breaking, bare wires, and loose or missing clamps. Make sure they are properly routed and the correct mounting hardware is in place. Existence of any of the above deficiencies may result in a fire.

CHAPTER INDEX (Continued)

WARNING

Make sure electrical harnesses/cables do not have evidence of wear, chafing, melting, cracking, breaking, bare wires, and loose or missing clamps. Make sure they are properly routed and the correct mounting hardware is in place. Existence of any of the above deficiencies may result in a fire.

CHAPTER INDEX (Continued)

WARNING

Make sure electrical harnesses/cables do not have evidence of wear, chafing, melting, cracking, breaking, bare wires, loose or missing clamps. Make sure they are properly routed and correct mounting hardware is in place. Existence of any of the above deficiencies may result in fire.

CHAPTER INDEX (Continued)

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Make sure electrical harnesses/cables do not have evidence of wear, chafing, melting, cracking, breaking, bare wires, loose or missing clamps. Make sure they are properly routed and correct mounting hardware is in place. Existence of any of the above deficiencies may result in fire.

CHAPTER INDEX (Continued)

WARNING

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ENGINE AC GENERATOR REPLACEMENT (Sheet 1 of 13)

TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)
Chemical and oil protective gloves (Item 90, Appendix E)
Deep style socket, 1/2-inch drive, 7/16-inch (Item 244, Appendix E)
Deep style socket, 1/2-inch drive, 3/4-inch (Item 243, Appendix E)
Industrial goggles (Item 92, Appendix E)
Open end wrench, 1-inch and 1-1/8 inch (Item 309, Appendix E)
Pocket knife (Item 128, Appendix E)
Torque wrench, 0-60 N•m (Item 330, Appendix E)
Torque wrench, 0-120 in-lb (Item 322, Appendix E)

SUPPLIES: Adhesive (Item 14, Appendix C)
Adhesive (Item 12, Appendix C)
Aircraft grease (Item 62, Appendix C)
Alternator replacement kit (Type A) (Item 97, Appendix G) (as required)
Alternator replacement kit (Type B) (Item 555, Appendix G) (as required)
Dry cleaning solvent (Item 48, Appendix C)
Electrical tiedown strap (Item 449, Appendix G) (as required)
Generator attachment kit (Type A) (Item 556, Appendix G) (as required)
Generator attachment kit (Type B) (Item 557, Appendix G) (as required)
Lockwasher (Item 128, Appendix G)
Lockwasher (Item 129, Appendix G)
Manila rope (Item 98, Appendix C)
Self-locking nut (Item 161, Appendix G)
Wiping rag (Item 94, Appendix C)
Wood block (Item 144, Appendix C) (2 required)

PERSONNEL: Two

EQUIPMENT CONDITION: Generator upper retaining strap removed (page 9-20)

REFERENCES: TM 5-5420-232-10

REMOVAL:

NOTE

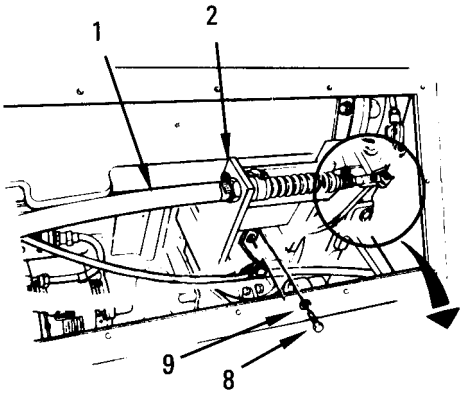
If generator is being removed because of a mechanical failure, engine oil could be contaminated. Take an oil sample and have it analyzed. Perform oil sampling IAW PAM 738-750.

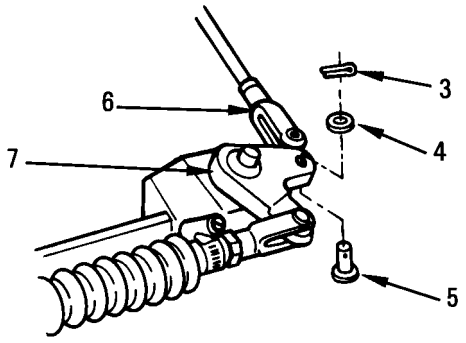
1. DISCONNECT SERVICE BRAKE CABLE (1) AND MOVE BRACKET (2) OUT OF WAY.

   a. Remove cotter pin (3), washer (4), and pin (5) from clevis (6) and bellcrank (7).

   b. Remove three screws (8) and washers (9) from bracket (2).

   c. Push cable (1) with bracket (2) up and out of the way.





Go on to Sheet 2

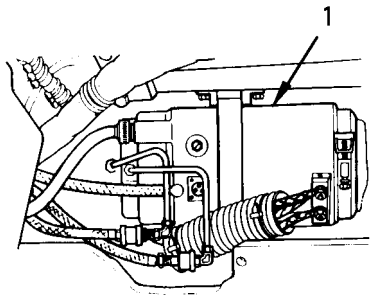
2w1485

ENGINE AC GENERATOR REPLACEMENT (Sheet 2 of 13)

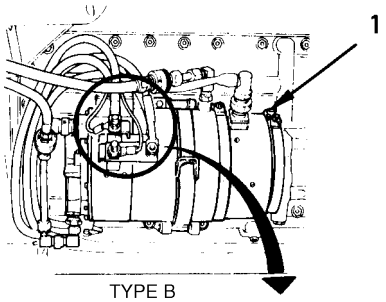
NOTE

- There are two types of engine AC generators (1). Generator type A is P/N 977-J175-2 or 977-J327-3 and generator type B is P/N 30B95-77.
- There are two types of generator (1) attachment kits. Make sure generator attachment kit matches generator type.

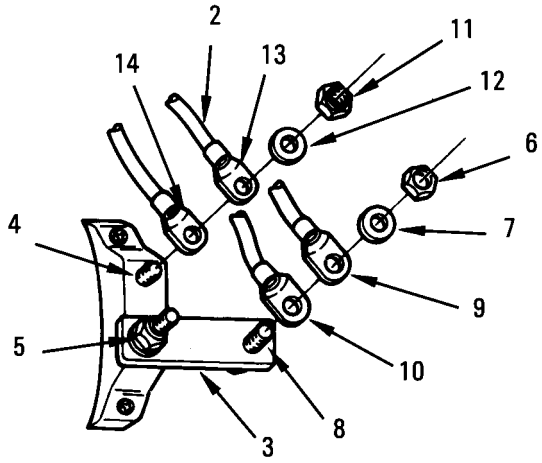
2. INSPECT GENERATOR (1) TO SEE WHICH TYPE IT IS. IF TYPE A, GO TO STEP 9. IF TYPE B, GO TO STEP 3.
3. DISCONNECT FOUR CABLES (2).
   a. Cut and peel adhesive from bus bar (3), terminal 3G101 E- (4), and terminal 3G101 B+ (5).
   b. Remove nut (6) and washer (7) from screw (8). Take terminal lugs 3W102-1E4 (9) and 3W102-2E2 (10) off screw (8). Install nut (6) and washer (7) back on screw (8).
   c. Remove self-locking nut (11) and washer (12) from terminal (4). Take terminal lugs 3W102-1E3 (13) and 3W102-2E1 (14) off terminal (4).
4. CUT OFF TWO ELECTRICAL TIEDOWN STRAPS (15).

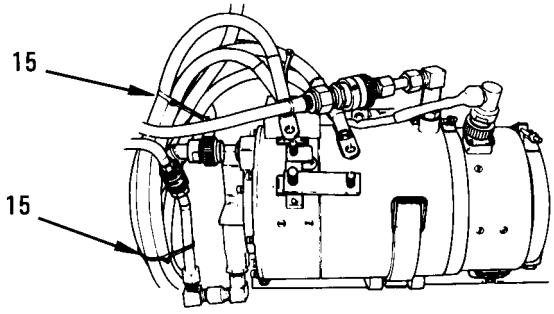


TYPE A



TYPE B



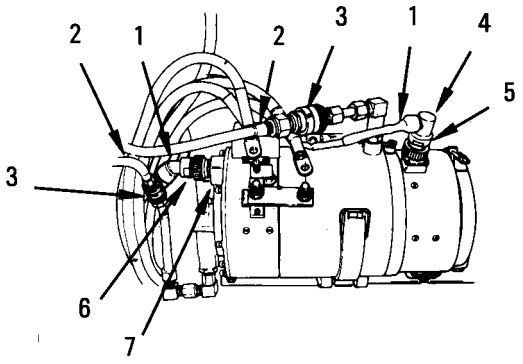


Go on to Sheet 3

2w4711

ENGINE AC GENERATOR REPLACEMENT (Sheet 3 of 13)

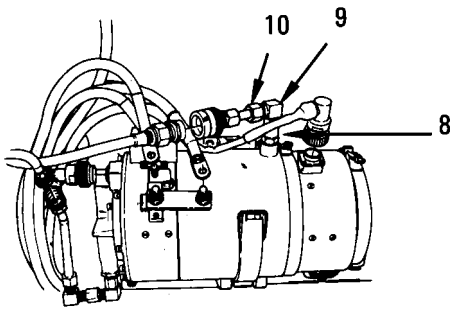
5. DISCONNECT TWO CABLES (1) AND OIL LINES (2).
   a. Disconnect two coupling halves (3).
   b. Disconnect plug 3W103-P3 (4) from receptacle 3G101-J2 (5) and plug 3W103-P2 (6) from receptacle 3G101-J1 (7).
6. LOOSEN NUT (8) ON ELBOW (9) AND TURN ELBOW (9) AND TUBE (10) TOWARD REAR OF TANK. TIGHTEN NUT (8).

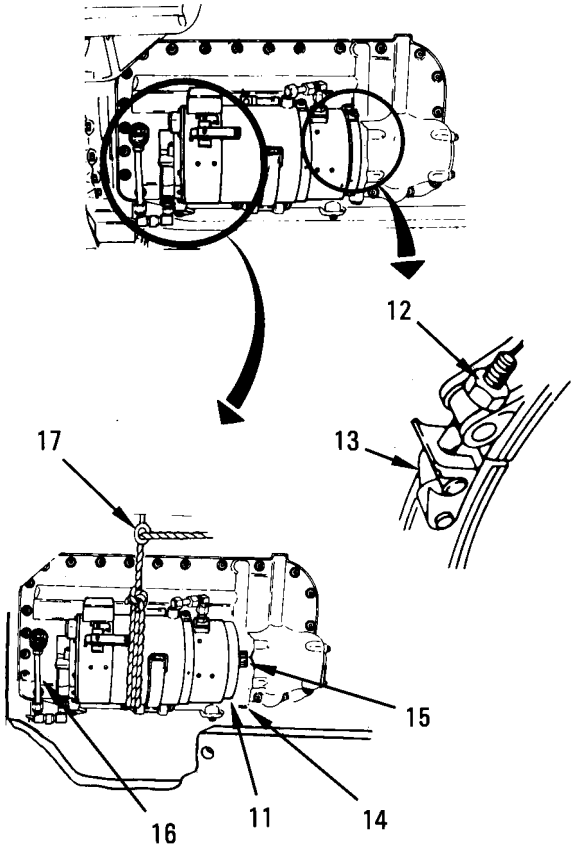


WARNING

The generator (11) weighs 100 pounds (45 kg). To avoid personal injury or damage to equipment, use care in handling it.

7. LIFT GENERATOR (11) FROM TRANSMISSION WITH ROPE AND SET ON TWO WOOD BLOCKS.
   a. Loosen clamp nut (12) and remove clamp (13).
   b. Slide generator (11) to left of transmission gear housing (14).
   c. Holding shaft (15) on right and tube (16) on left, lift and move generator (11) to center of vehicle under lifting eye (17).



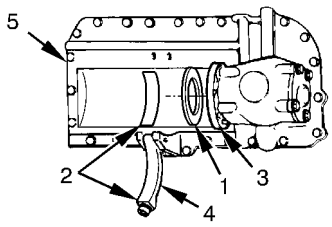


Go on to Sheet 4

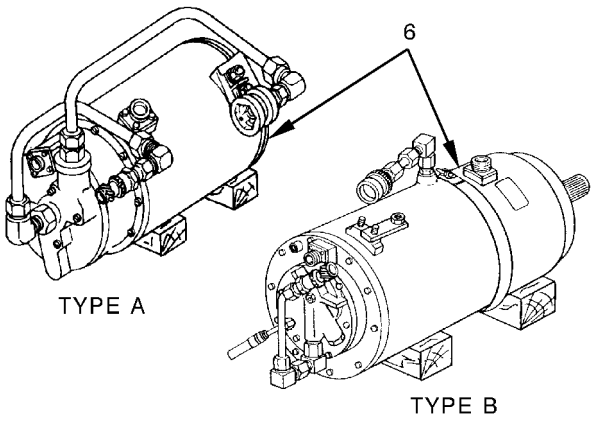
2w1487

ENGINE AC GENERATOR REPLACEMENT (Sheet 6 of 13)

WARNING



13. REMOVE GASKET (1) AND CLEAN GROOVE WITH SOLVENT AND RAG. INSPECT CUSHIONING PADS (2) FOR DAMAGE. REPLACE AS REQUIRED.
    a. Remove gasket (1) from groove in housing (3).
    b. Clean adhesive and gasket pieces from groove with solvent and rag.
    c. Inspect pad (2) on lower retaining strap (4) and transmission (5) for gouges or missing sections. If damaged, replace generator lower retaining strap cushioning pad or transmission cushioning pad (page 9-18).

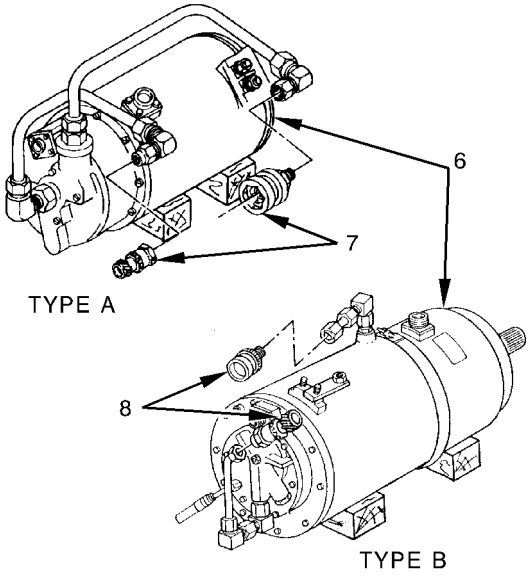


NOTE

Skip step 14 if either generator (6) was removed to gain access only.

14. REMOVE TWO QUICK-DISCONNECT COUPLING HALVES (7 OR 8).

15. INSPECT PARTS FOR DAMAGE. REPLACE AS REQUIRED.



Go on to Sheet 7

ENGINE AC GENERATOR REPLACEMENT (Sheet 7 of 13)

INSTALLATION:

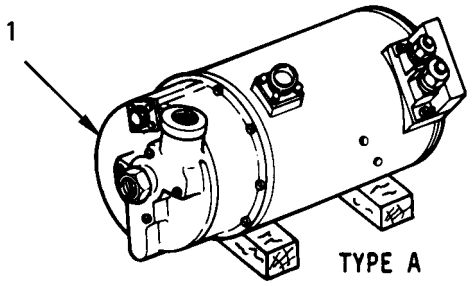
WARNING

Make sure harnesses, oil lines and fittings, quick-disconnects, and mounting hardware are properly installed. Improper installation may result in an engine compartment fire.

NOTE

There are two types of generators (1, 2). Generator (1), type A, is P/N 977-J175-2 or 977-J327-3. Generator (2), type B, is P/N 30B95-77.

1. INSPECT GENERATOR (1, 2) TO SEE WHICH TYPE IT IS. IF TYPE A, GO TO STEP 11. IF TYPE B, READ NOTE.



WARNING

NOTE

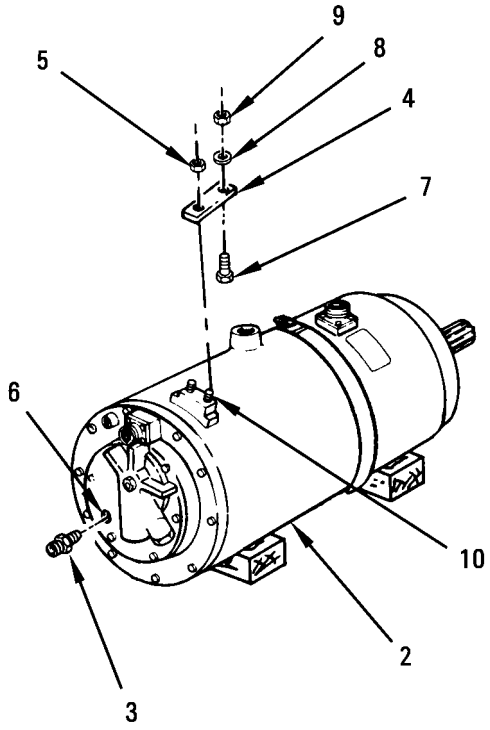
If generator (1) was removed for access only, go to step 5.

2. INSTALL NEW ADAPTER (3) AND BUS BAR (4). TORQUE NEW NUT (5) BETWEEN 30-33 N•m (22-24 LB-FT).

   a. Put adhesive (Item 12, Appendix C) on all but first two threads of adapter (3). Install adapter (3) in port (6) of new generator (2).

   b. Put new screw (7) in bus bar (4). Put new washer (8) on screw (7) and start nut (9) on screw (7) by hand.

   c. Put bus bar (4) in place on terminal (10). Install nut (5) on terminal (10). Torque nut (5) between 30-33 N•m (22-24 lb-ft).



Go on to Sheet 8

2w4714

ENGINE AC GENERATOR REPLACEMENT (Sheet 8 of 13)

3. INSTALL GENERATOR OIL INLET QUICK-DISCONNECT COUPLING HALF, OIL COOLING TUBE ASSEMBLY, AND TUBE ELBOWS (PAGE 9-27).
4. INSTALL GENERATOR OIL OUTLET QUICK-DISCONNECT COUPLING HALF, OIL COOLING TUBE ASSEMBLY, TUBE ELBOW, AND STRAIGHT ADAPTER (PAGE 9-24).
5. CLEAN GENERATOR (1) SHAFT SPLINES (2) WITH CLEAN RAG. GREASE SPLINES (2).

WARNING

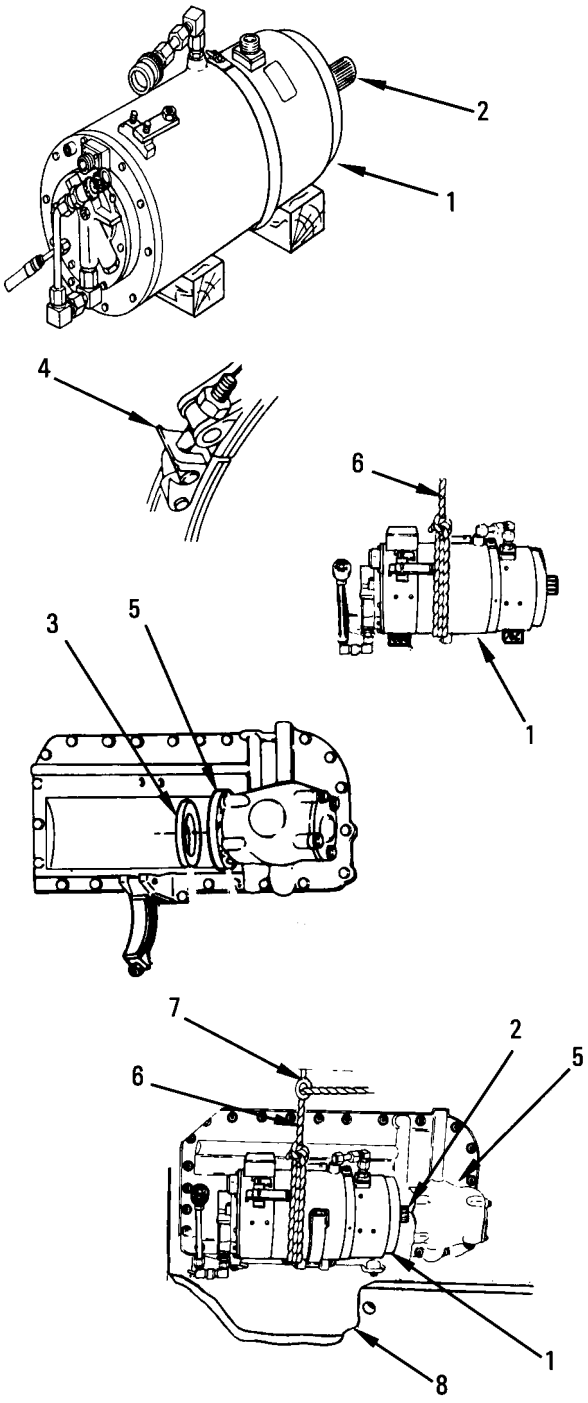
The generator (1) weighs 100 pounds (45 kg). To avoid personal injury or damage to equipment, use care in handling.

6. INSTALL NEW GASKET (3), GENERATOR (1), AND CLAMP (4).
   a. Coat both gasket (3) and groove in housing (5) with adhesive (Item 12, Appendix C). Put gasket (3) in groove.
   b. Wrap one end of rope (6) around generator (1) three or more times and tie knot. Put other end of rope (6) through eye (7) above opening (8).

NOTE

Steps c and d must be done at the same time with one soldier standing behind the other.

   c. Pull on rope (6) and lift generator (1) while other soldier does step d.



Go on to Sheet 9

2w5302

ENGINE AC GENERATOR REPLACEMENT (Sheet 9 of 13)

d. Lift and guide generator (1) in place and in line with housing (2) on transmission. Remove rope (3). Lift and guide generator (1) to the right until spline (4) goes in housing (2).

e. Put clamp (5) around generator (1) and tighten nut (6).

7. TORQUE NUT (6) BETWEEN 45-50 LB-IN (5.1-5.5 N•m).

8. PUT LUGS 3W102-2E1 (7) AND 3W102-1E3 (8) ON TERMINAL (9). INSTALL WASHER (10) AND NEW NUT (11). TORQUE NUT (11) BETWEEN 20-23 N•m (15-17 LB-FT).

9. REMOVE NUT (12) AND WASHER (13) FROM SCREW (14) ON BUS BAR (15).

10. PUT LUGS 3W102-2E2 (16) AND 3W102-1E4 (17) ON SCREW (14). INSTALL WASHER (13) AND NUT (12). TORQUE NUT (12) BETWEEN 43-46 N•m (32-34 LB-FT).

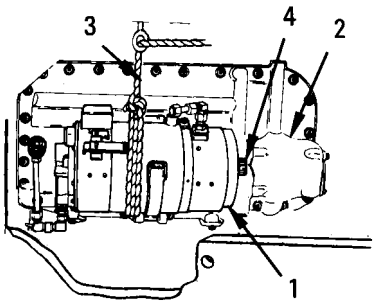
11. INSTALL TWO NEW STRAPS (18) AS SHOWN.

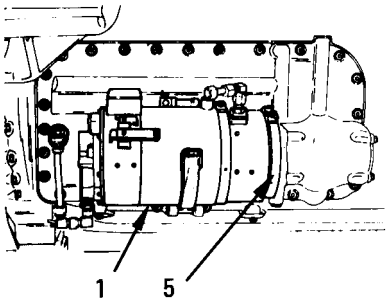
WARNING

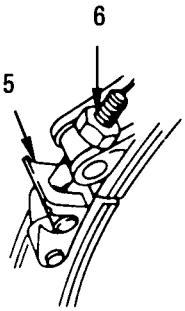
WARNING

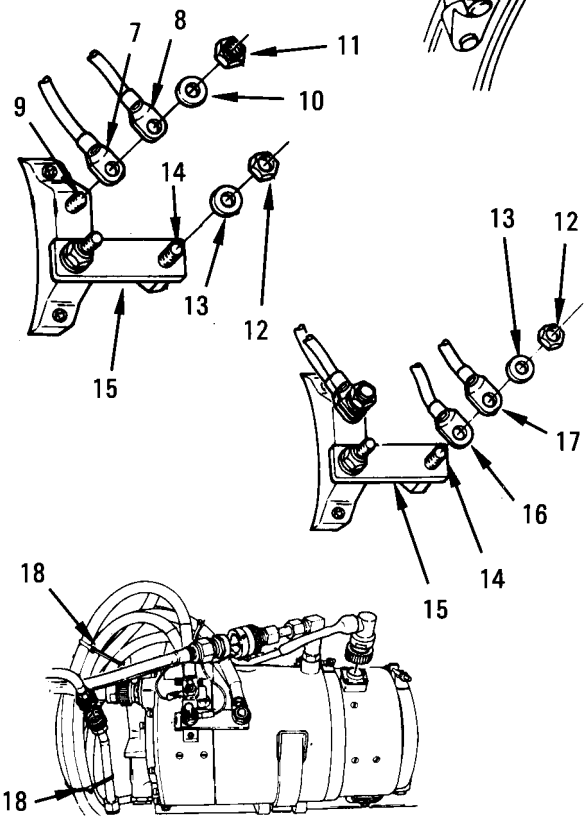
Make sure terminal (9), bus bar (15), lugs (7, 8, 16, 17), and mounting hardware are coated with adhesive. Uninsulated metal components may cause electrical arcing and an engine compartment fire.

12. COAT TERMINAL (9), BUS BAR (15), LUGS (7, 8, 16, 17), AND MOUNTING HARDWARE WITH ADHESIVE (ITEM 14, APPENDIX C). MAKE SURE ALL METAL IS COATED.









Go on to Sheet 10

2w3597

ENGINE AC GENERATOR REPLACEMENT (Sheet 10 of 13)

13. CONNECT TWO CABLES (1) AND OIL LINES (2). GO TO STEP 21.

    a. Connect plug 3W103-P3 (3) to receptacle 3G101-J2 (4) and plug 3W103-P2 (5) to receptacle 3G101-J1 (6).

    b. Push oil outlet coupling halves (7) together and turn clockwise.

    c. Push oil inlet coupling halves (8) together and turn clockwise. go to step 21.

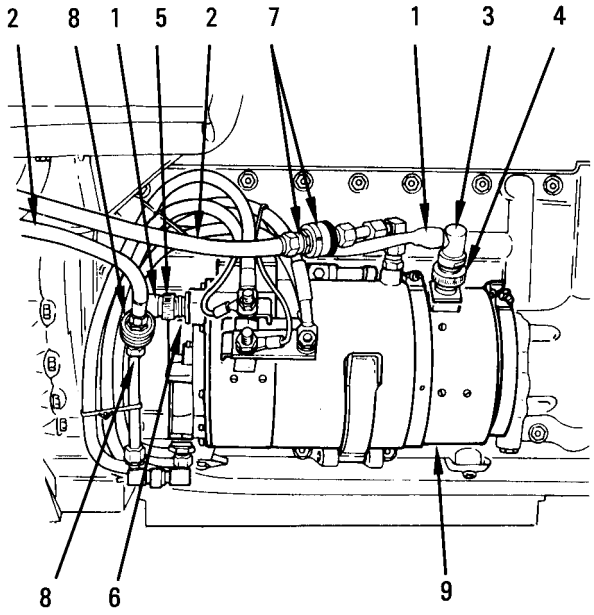
NOTE

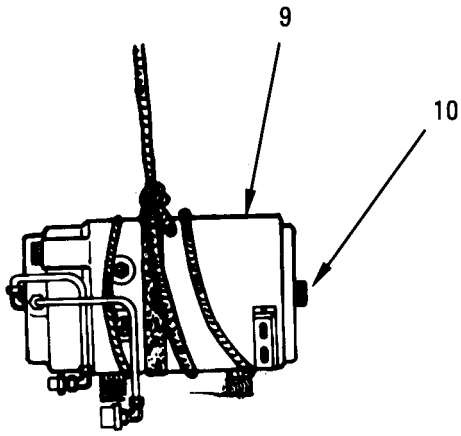
If generator (9) was removed for access only, go to step 17.

14. INSTALL GENERATOR OIL INLET QUICK-DISCONNECT COUPLING HALF, OIL COOLING TUBE ASSEMBLY, AND TUBE ELBOWS (PAGE 9-27).

15. INSTALL GENERATOR OIL OUTLET QUICK-DISCONNECT COUPLING HALF, OIL COOLING TUBE ASSEMBLY, TUBE ELBOW, AND TUBE REDUCER (PAGE 9-24).

16. CLEAN GENERATOR (9) SHAFT SPLINES (10) WITH CLEAN RAG. GREASE SPLINES (10).





Go on to Sheet 11

2w1494

ENGINE AC GENERATOR REPLACEMENT (Sheet 11 of 13)

WARNING

The generator (1) weighs 100 pounds (45 kg). To avoid personal injury or damage to equipment, use care in handling.

17. INSTALL NEW GASKET (2) AND GENERATOR (1).

    a. Coat both gasket (2) and groove in housing (3) with adhesive (Item 12, Appendix C). Put gasket (2) in groove.

    b. Wrap one end of rope (4) around generator (1) three or more times and tie knot. Put other end of rope (4) through eye (5) above opening (6).

NOTE

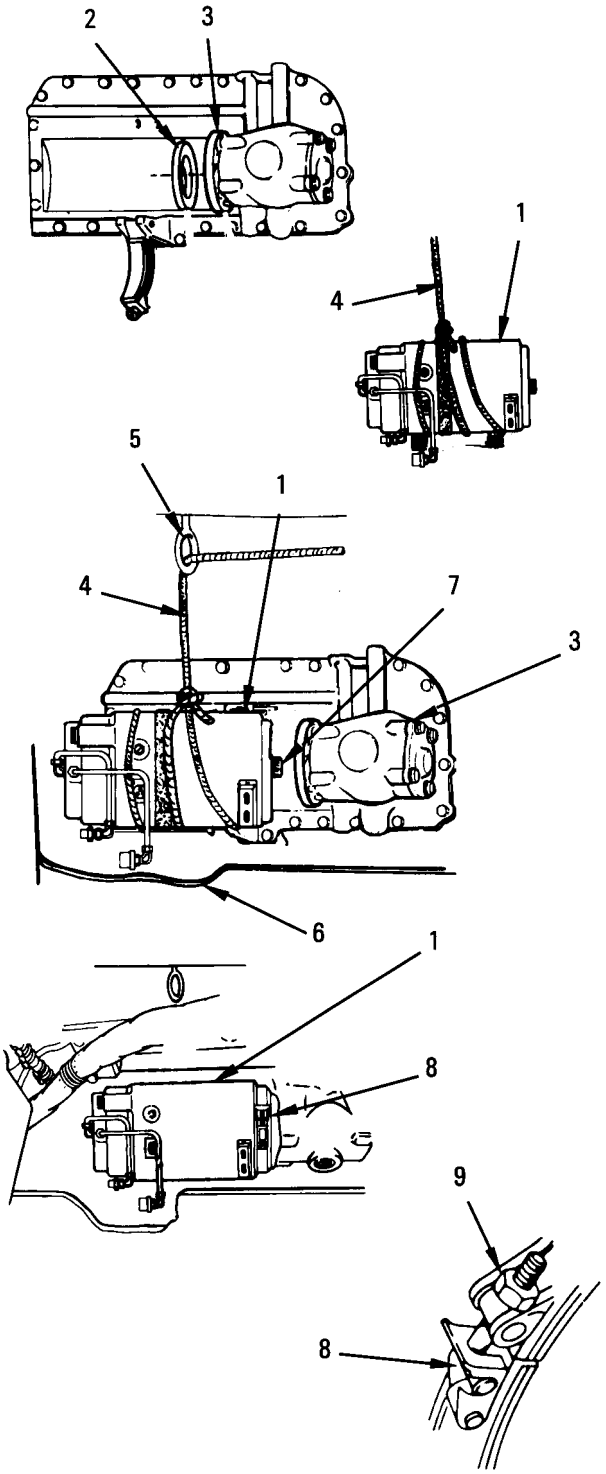
Steps c and d must be done at the same time with one soldier standing behind the other.

    c. Pull on rope (4) and lift generator (1) while other soldier does step d.

    d. Lift and guide generator (1) in place and in line with housing (3) on transmission. Remove rope (4). Lift and guide generator (1) to the right until spline (7) goes in housing (3).

    e. Put clamp (8) around generator (1) and tighten nut (9).

18. TORQUE NUT (9) BETWEEN 45-50 LB-IN (5.1-5.5 N•m).



Go on to Sheet 12

2w1495

ENGINE AC GENERATOR REPLACEMENT (Sheet 12 of 13)

19. CONNECT SIX CABLES (1 THRU 6) AND TWO OIL LINES (7).

NOTE

If Type B generator (P/N 30B95-77) is used to replace Type A generator (P/N 977-J175-2 or 977-J327-3), do step a.

a. Install tubing (8) and two new electrical tiedown straps (9) around cables (3 thru 6).

b. Connect plug 3W103-P3 (10) to receptacle 3G101-J2 (11) and plug 3W103-P2 (12) to receptacle 3G101-J1 (13).

c. Put two large lugs (14) on terminal 3G101 B+ (15). Install nut (16), new lockwasher (17), and washer (18).

d. Put two small lugs (19) on terminal 3G101 E- (20). Install nut (21), new lockwasher (22), and washer (23).

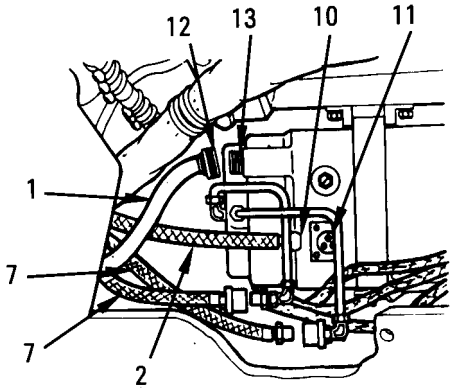
e. Push oil outlet coupling halves (24) together and turn clockwise. Push oil inlet coupling halves (25) together and turn clockwise.

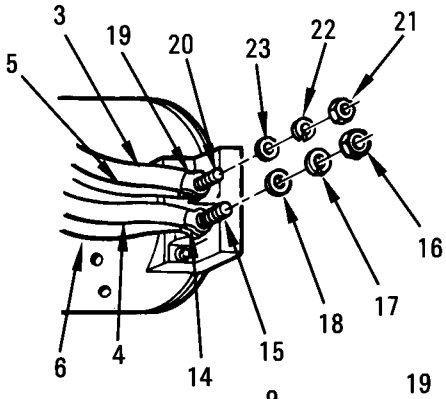
WARNING

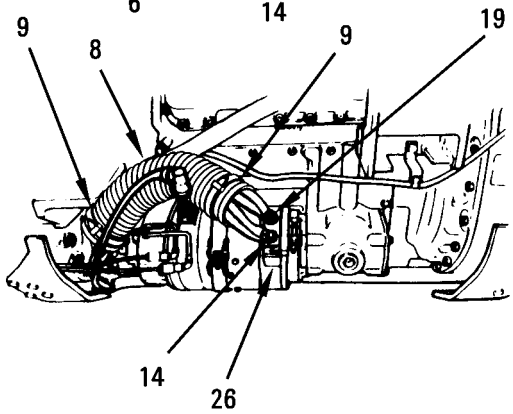
WARNING

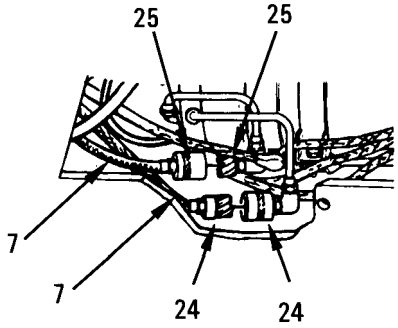
Make sure terminals (15, 20), lugs (14, 19), terminal block (26), and mounting hardware are coated with adhesive. Uninsulated metal components may cause electrical arcing and an engine compartment fire.

20. COAT TERMINALS (15, 20), FOUR LUGS (14, 19), TERMINAL BLOCK (26), AND MOUNTING HARDWARE WITH ADHESIVE (ITEM 14, APPENDIX C). MAKE SURE ALL METAL IS COATED.







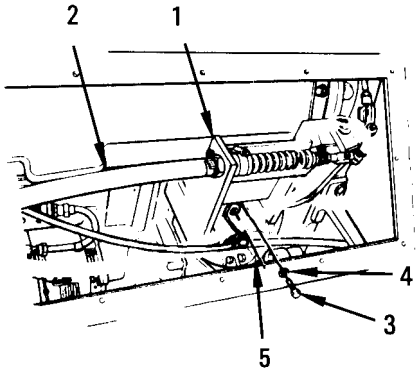


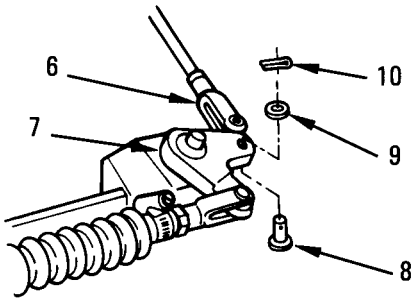
Go on to Sheet 13

2w5313

ENGINE AC GENERATOR REPLACEMENT (Sheet 13 of 13)

21. SECURE BRACKET (1) AND CONNECT CABLE (2).
    a. Move cable (2) to aline bracket (1). Install two upper screws (3) and washers (4) through bracket (1).
    b. Install third screw (3), washer (4), and cable clamp (5) through lower hole in bracket (1).
    c. Put clevis (6) in place on bell crank (7). Put pin (8) through holes in clevis (6) and bell crank (7). Put washer (9) on pin (8).
    d. Install new cotter pin (10).
22. INSTALL GENERATOR UPPER RETAINING STRAP (PAGE 9-20).
23. SERVICE ENGINE OIL TANK (TM 5-5420-232-10).
24. START ENGINE AND CHECK OUT ELECTRICAL POWER SYSTEM (TM 5-5420-232-10).





End of Task

GENERATOR UPPER OR LOWER RETAINING STRAP CUSHIONING PAD REPLACEMENT (Sheet 1 of 2)

TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)
Chemical and oil protective gloves (Item 90, Appendix E)
Industrial goggles (Item 92, Appendix E)

SUPPLIES: Acid swabbing brush (Item 26, Appendix C)
Adhesive (Item 13, Appendix C)
Cushioning pad (Item 274, Appendix G)
Dry cleaning solvent (Item 48, Appendix C)
Wiping rag (Item 94, Appendix C)

EQUIPMENT CONDITION: When removing upper or lower cushion:
Generator upper retaining strap removed (page 9-20)
When removing lower cushion:
Engine AC generator removed (page 9-6)

REFERENCES: TM 5-5420-232-10

Go on to Sheet 2 2w1497

GENERATOR OIL OUTLET QUICK-DISCONNECT COUPLING HALF, OIL COOLING TUBE ASSEMBLY, TUBE ELBOW, AND TUBE REDUCER OR STRAIGHT ADAPTER REPLACEMENT (Sheet 1 of 3)

TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)
Hinged handle, 3/4-inch drive (Item 106, Appendix E)
Open end wrench, 1-3/8 inch and 1-1/2 inch (Item 306, Appendix E)
Socket, 3/4-inch drive, 1-3/8 inch (Item 220, Appendix E)

SUPPLIES: Lubricating oil (Item 74, Appendix C)
Preformed packing (Item 234, Appendix G)

EQUIPMENT CONDITION: Vehicle power disconnected (page 9-159)
Exhaust duct door assembly panel removed (page 4-2)

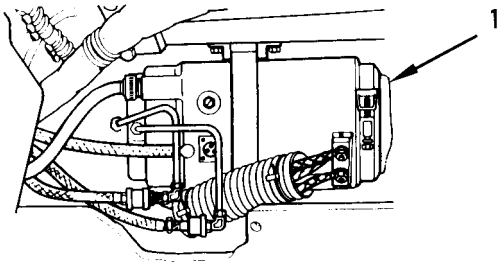
REFERENCES: TM 5-5420-232-10

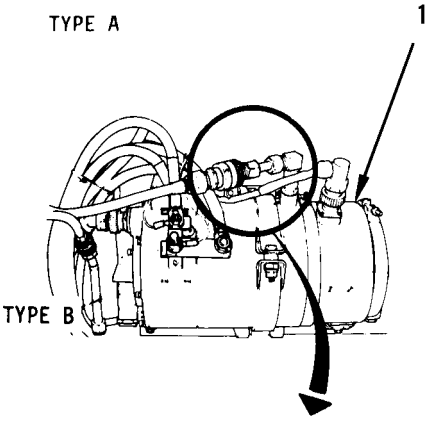
REMOVAL:

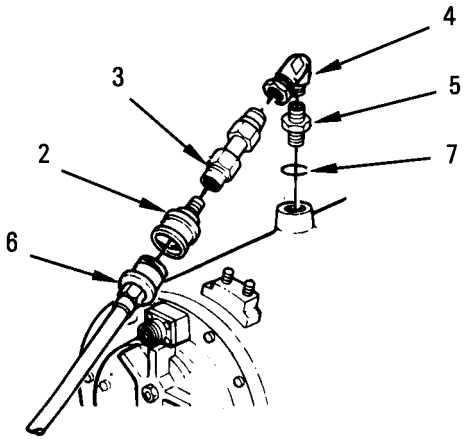
NOTE

There are two types of engine AC generators (1). Type A is P/N 977-J175-2 or 977-J327-3 and type B is P/N 30B95-77.

1. INSPECT GENERATOR (1) TO SEE WHICH TYPE IS TO BE WORKED ON. IF TYPE A, GO TO STEP 3. IF TYPE B, GO TO STEP 2.
2. REMOVE COUPLING HALF (2), TUBE (3), ELBOW (4), AND REDUCER (5). GO TO STEP 4.
   a. Disconnect two coupling halves (2, 6).
   b. Remove coupling half (2) from tube (3).
   c. Remove tube (3) from elbow (4). Remove elbow (4) from reducer (5).
   d. Remove reducer (5) and preformed packing (7). Go to step 4.





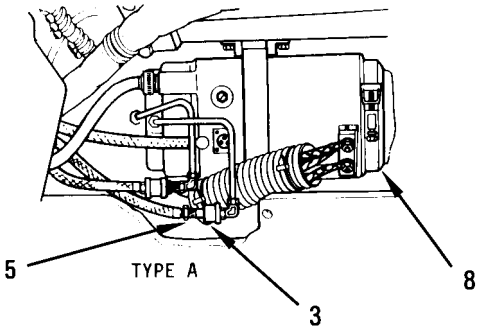


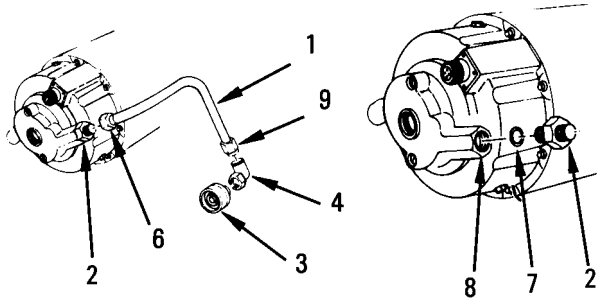
Go on to Sheet 2

2w4718

GENERATOR OIL OUTLET QUICK-DISCONNECT COUPLING HALF, OIL COOLING TUBE ASSEMBLY, TUBE ELBOW, AND TUBE REDUCER OR STRAIGHT ADAPTER REPLACEMENT (Sheet 2 of 3)

3. REMOVE TUBE (1), REDUCER (2), COUPLING HALF (3), AND TUBE ELBOW (4).
   a. Disconnect two coupling halves (3, 5).
   b. Disconnect tube nut (6) from reducer (2) and remove reducer (2) and preformed packing (7) from generator (8).
   c. Remove coupling half (3) and tube nut (9) from elbow (4).
4. INSPECT PARTS FOR DAMAGE. REPLACE AS REQUIRED.





INSTALLATION:

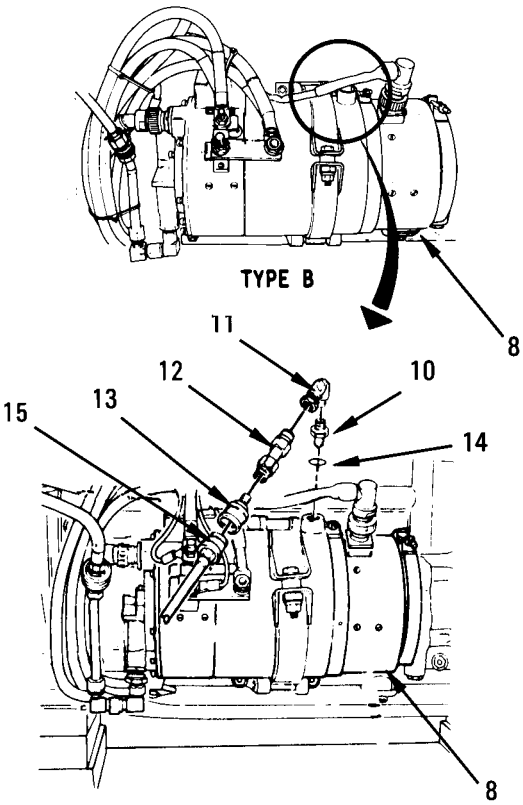
WARNING

Make sure oil tubes and mounting hardware are properly installed and tightened. A loose or damaged connection may result in an engine compartment fire.

NOTE

There are two types of generators (8). Type A is P/N 977-J175-2 or 977-J327-3 and type B is P/N 30B95-77.

1. INSPECT GENERATOR (8) TO SEE WHICH TYPE IS TO BE WORKED ON. IF TYPE A, GO TO STEP 4. IF TYPE B, GO TO STEP 2.
2. INSTALL REDUCER (10), ELBOW (11), TUBE (12), AND COUPLING HALF (13).
   a. Lubricate new packing (14). Put packing (14) on reducer (10) and install reducer (10) to generator (8).
   b. Install elbow (11) to reducer (10).
   c. Install elbow (11) and coupling half (13) to tube (12).
3. CONNECT COUPLING HALF (13) CLOCKWISE TO COUPLING HALF (15). GO TO STEP 6.



Go on to Sheet 3

2w4719

IGNITION EXCITER REPLACEMENT (Sheet 1 of 1)

TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)

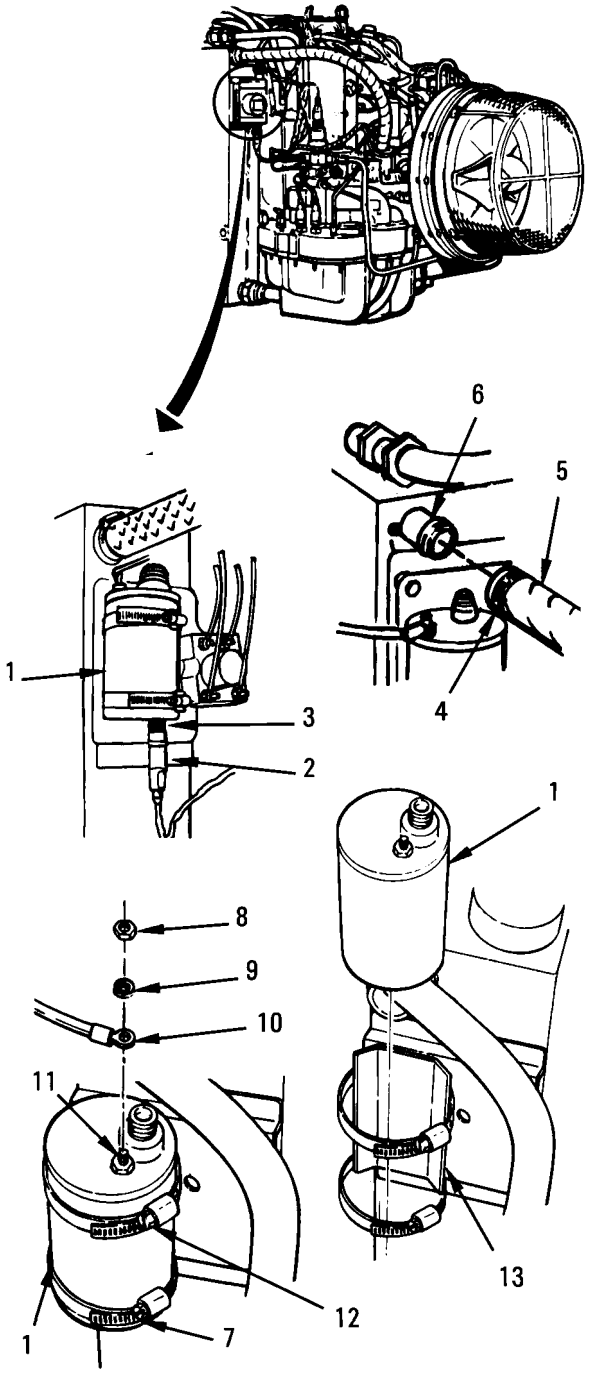
EQUIPMENT CONDITION: Ignition electrical lead removed (page 9-36)

REMOVAL:

1. REMOVE EXCITER (1).
   a. Disconnect plug connector 3W107-P16 (2) from bottom of ignition exciter receptacle connector (3).
   b. Loosen clamp (4) on vent hose assembly (5). Pull hose (5) off oil tank fitting (6).
   c. Loosen bottom clamp (7).
   d. Remove nut (8), washer (9), and terminal lead (10) from ignition exciter ground terminal (11).
   e. Hold exciter (1) with one hand and loosen top clamp (12). Slide exciter (1) up and out of bracket (13).
2. INSPECT PARTS FOR DAMAGE. REPLACE AS REQUIRED.

INSTALLATION:

1. INSTALL EXCITER (1).
   a. Put exciter (1) in two clamps (7, 12) with connector (3) toward center of engine. Tighten two clamps (7, 12).
   b. Put lead (10) and washer (9) on terminal (11) and install nut (8).
   c. Push hose (5) all the way on fitting (6). Move clamp (4) over fitting (6) and tighten.
   d. Aline key in connector 3W107-P16 (2) with keyway in exciter receptacle (3). Join connector (2) to connector (3).
2. INSTALL IGNITION ELECTRICAL LEAD (PAGE 9-36).



End of Task 2w1514

SPARK IGNITER REPLACEMENT (Sheet 1 of 1)

TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)
Adapter, 3/8-inch to 1/2-inch (Item 6, Appendix E)
Deep style socket, 1/2-inch drive, 7/8-inch (Item 245, Appendix E)
Torque wrench, 0-600 in-lb (Item 332, Appendix E)

SUPPLIES: Antiseize compound (Item 20, Appendix C)

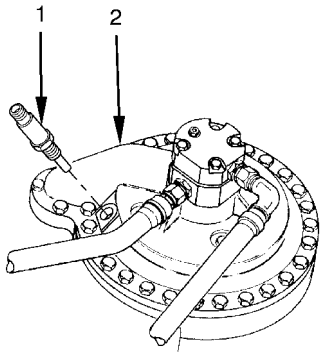
EQUIPMENT CONDITION: Ignition electrical lead removed (page 9-36)

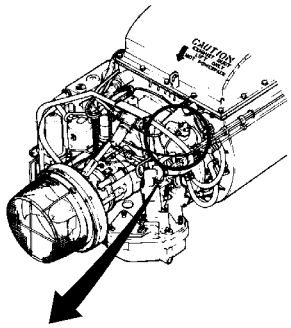
REMOVAL:

1. REMOVE IGNITER (1) FROM COMBUSTOR COVER (2).
2. INSPECT IGNITER (1) FOR DAMAGE. REPLACE AS REQUIRED.

INSTALLATION:

1. INSTALL AND TORQUE IGNITER (1) BETWEEN 375-425 LB-IN (42-48 N•m).
   a. Coat threads of igniter (1) with antiseize compound.
   b. Install igniter (1) in cover (2). Torque igniter (1) between 375-425 lb-in (42-48 N•m).
2. INSTALL IGNITION ELECTRICAL LEAD (PAGE 9-36).





End of Task

ENGINE STARTER REPLACEMENT (Sheet 1 of 6)

TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)
Deep style socket, 1/2-inch drive, 3/4-inch (Item 243, Appendix E)
Inspection mirror, 18-inch (Item 141, Appendix E)
Torque wrench, 0-600 in-lb (Item 332, Appendix E)
Torque wrench, 0-175 ft-lb (Item 324, Appendix E)

SUPPLIES: Gasket (Item 60, Appendix G)
Gasket (Item 62, Appendix G)
Lockwasher (Item 531, Appendix G) (as required)
Lockwasher (Item 115, Appendix G) (as required)
Lubricating oil (Item 76, Appendix C)
Preformed packing (Item 223, Appendix G)
Sealant adhesive (Item 1, Appendix C)
Slip joint nut (Item 180, Appendix G) (3 required)
Wiping rag (Item 94, Appendix C)

PERSONNEL: Two

EQUIPMENT CONDITION: Vehicle power disconnected (page 9-159)
Engine step plate removed (page 4-11)
Rear arm opened (page 17-188)

REFERENCES: TM 5-5420-232-10

Go on to Sheet 2

2w5828

LOWER SIDE WIRING HARNESS BRACKET REPLACEMENT (Sheet 1 of 3)

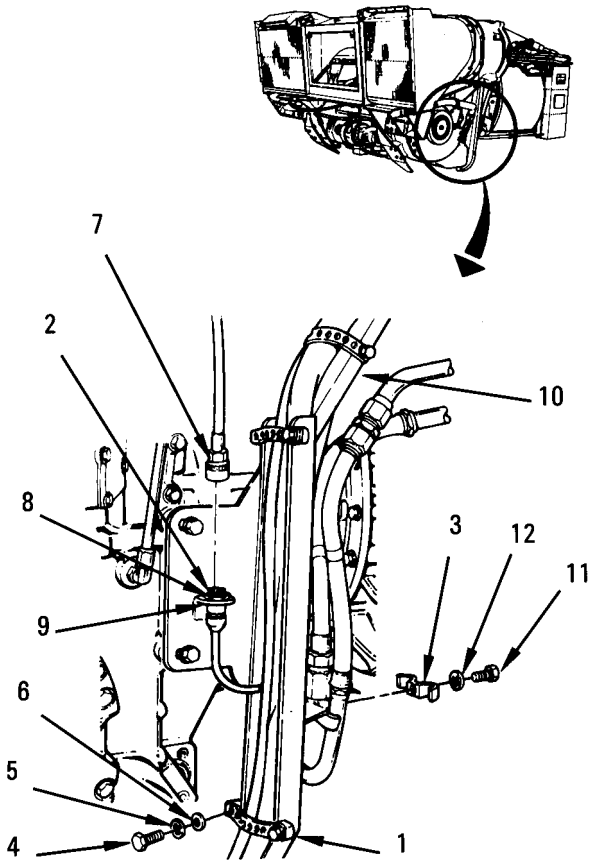
TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)
Combination wrench, 1-1/8 inch (Item 298, Appendix E)

SUPPLIES: Lockwasher (Item 117, Appendix G) (8 required)
Lockwasher (Item 111, Appendix G) (2 required)

EQUIPMENT CONDITION: Upper side airflow baffle removed (page 8-4)
Lower side air baffle removed (page 8-5)
Lower fan assembly airflow baffle removed (page 8-2)

REMOVAL:

1. LOOSEN FOUR TIEDOWN STRAPS (1) AND REMOVE RECEPTACLE CONNECTOR 3W104-9-J1 (2) AND RETAINING STRAP (3).
   a. Remove four screws (4), lockwashers (5), and washers (6) from straps (1).
   b. Disconnect plug connector 3L104-P1 (7) from connector (2).
   c. Remove nut (8) from connector (2). Pull connector (2) off bracket (9) and clear of wiring harness bracket (10).
   d. Remove screw (11), washer (12), and strap (3).

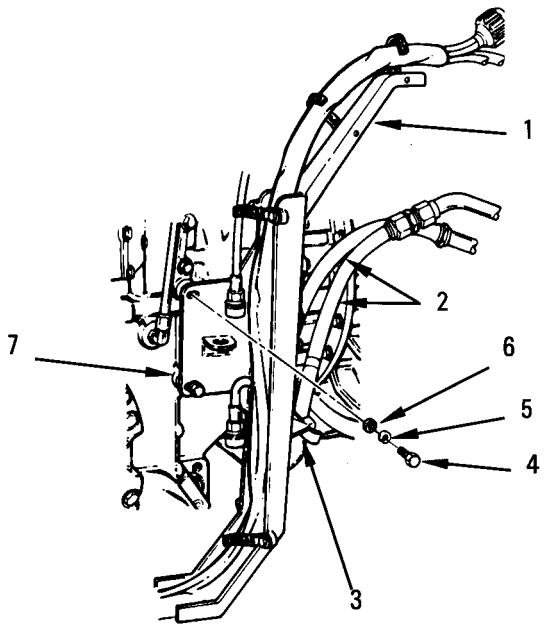


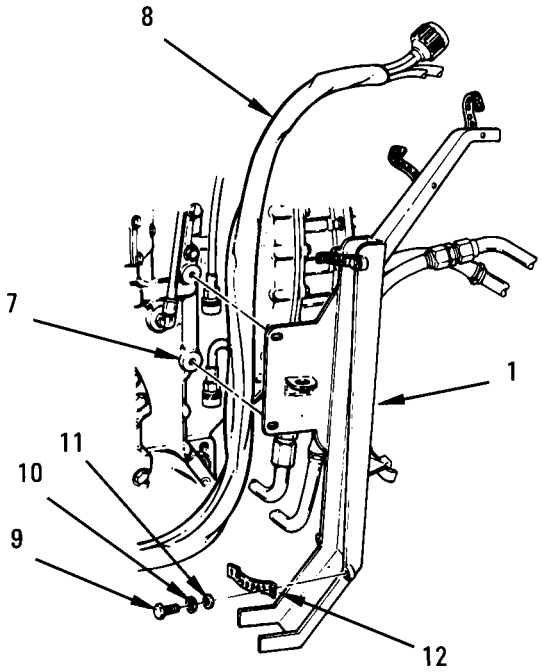
Go on to Sheet 2

2w1531

LOWER SIDE WIRING HARNESS BRACKET REPLACEMENT (Sheet 2 of 3)

2. REMOVE BRACKET (1).
   a. Pull two hose assemblies (2) clear of bracket (3).
   b. Remove two screws (4), lockwashers (5), and washers (6) from bracket (1) and transmission (7).
   c. Lift cable harness (8) away from bracket (1) and pull bracket (1) off transmission (7).
   d. Remove four screws (9), lockwashers (10), washers (11) and straps (12) from bracket (1).
3. INSPECT PARTS FOR DAMAGE. REPLACE AS REQUIRED.





Go on to Sheet 3

2w1532

LOWER REAR WIRING HARNESS TRACK REPLACEMENT (Sheet 1 of 1)

TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)

SUPPLIES: Lockwasher (Item 111, Appendix G) (8 required)

EQUIPMENT CONDITION: Powerpack removed (page 4-12)

REMOVAL:

1. REMOVE EIGHT SCREWS (1), LOCKWASHERS (2), AND WASHERS (3) FROM TRACK (4).
2. INSPECT PARTS FOR DAMAGE. REPLACE AS REQUIRED.

INSTALLATION:

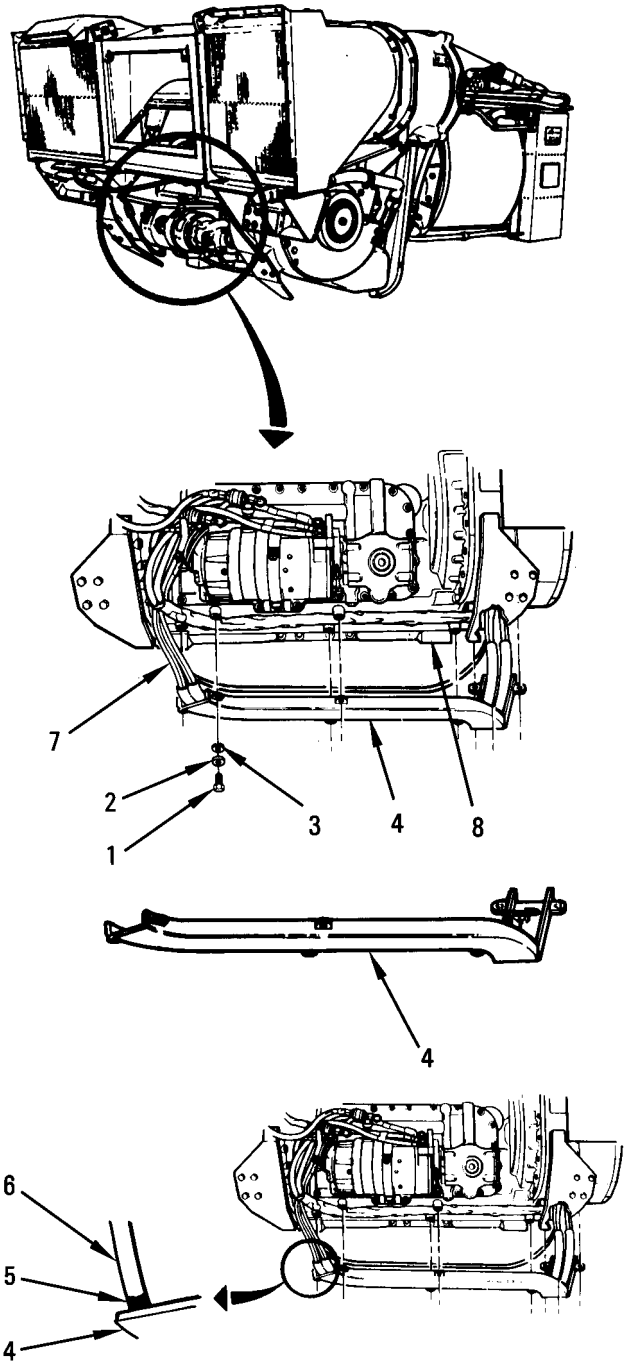
WARNING

Make sure electrical harnesses/cables do not have evidence of wear, chafing, melting, cracking, breaking, bare wires, and loose or missing clamps. Make sure they are properly routed and the correct mounting hardware is in place. Existence of any of the above deficiencies may result in a fire.

CAUTION

Be sure 27-inch (68.58 cm) mark (5) on transmission cable assembly (6) is positioned at end of track (4). Cable (6) can be damaged when installing and removing powerpack if it is too long.

1. INSTALL TRACK (4).
   a. Put harnesses (7) in track (4).
   b. If installed, position cable (6) so that mark (5) is at end of track (4).
   c. Aline mounting holes in track (4) with transmission (8).
   d. Install eight screws (1), new lockwashers (2), and washers (3) that hold track (4) against transmission (8).
2. INSTALL POWERPACK (PAGE 4-24).



End of Task

2w4974

DRIVER'S INTEGRATED DISPLAY (DID) REPLACEMENT (Sheet 1 of 2)

TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)
Torque wrench, 0-175 ft-lb (Item 324, Appendix E)
Torque wrench, 0-300 in-lb (Item 328, Appendix E)

SUPPLIES: Sealing compound (Item 109, Appendix C)

PERSONNEL: Two

EQUIPMENT CONDITION: Vehicle power disconnected (page 9-159)
Driver's hatch open (TM 5-5420-232-10)
Driver's integrated display (DID) switch guards removed (page 9-396.1)

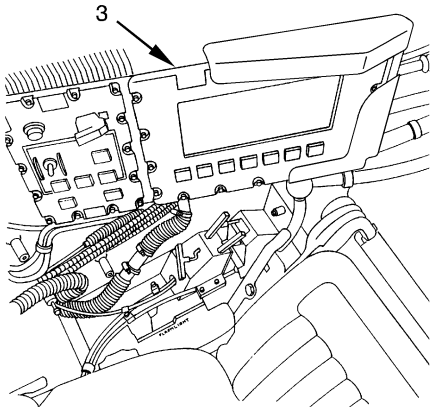
REMOVAL:

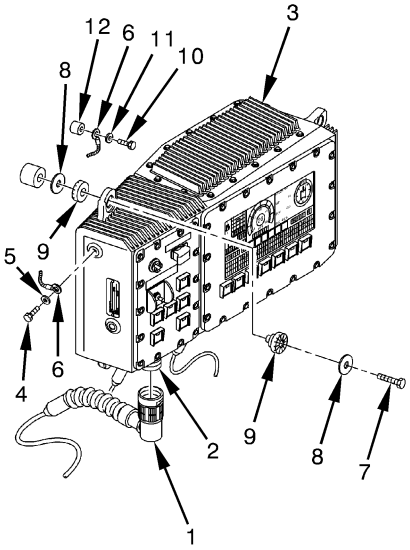
1. REMOVE THREE HARNESS CONNECTORS (1) FROM RECEPTACLE CONNECTORS (2).

WARNING

Display (3) weighs 49 pounds (22 kg). To avoid injury, two soldiers are needed to remove display (3).

2. REMOVE DISPLAY (3).
   a. Remove screw (4), washer (5), and electrical lead (6) from display (3).
   b. Remove two screws (7), four washers (8) from display (3). Remove display (3).
   c. Remove four shock mount halves (9) from display (3).
3. INSPECT LEAD (6) FOR DAMAGE. IF DAMAGED, REMOVE SCREW (10), WASHER (11), AND LEAD (6) FROM STANDOFF (12).
4. INSPECT ALL OTHER PARTS FOR DAMAGE. REPLACE AS REQUIRED.





Go on to Sheet 2

habw5363

DRIVER'S INTEGRATED DISPLAY (DID) REPLACEMENT (Sheet 2 of 2)

INSTALLATION:

NOTE

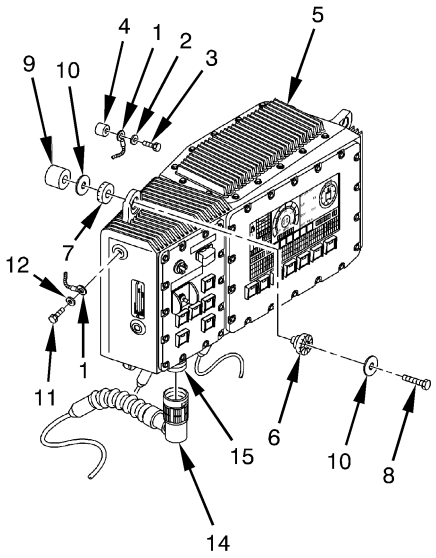
If lead (1) is new, do step 1.

1. HCP PUT WASHER (2) AND NEW LEAD (1) ON SCREW (3). INSTALL SCREW (3) IN STANDOFF (4). TORQUE SCREW (3) BETWEEN 120-144 LB-IN (14-16 N•m).

WARNING

Display (5) weighs 49 pounds (22 kg). To avoid injury, two soldiers are needed to install display (5).

2. HCP INSTALL DISPLAY (5).
   a. Put four shock mount halves (6, 7) on display (5).
   b. Apply sealing compound to two screws (8).
   c. Aline display (5) with four standoffs (9) and install two screws (8) and four washers (10).
3. INSTALL SCREW (11), WASHER (12), AND LEAD (1) TO DISPLAY (5). TORQUE SCREW (11) BETWEEN 120-144 LB-IN (14-16 N•m).
4. INSTALL THREE CONNECTORS (13) TO RECEPTACLE CONNECTORS (14) ON DISPLAY (5).
5. INSTALL DRIVER'S INTEGRATED DISPLAY (DID) SWITCH GUARDS (PAGE 9-396.1).
6. TORQUE SCREWS (8) BETWEEN 36-43 LB-FT (48-58 N•m).
7. CONNECT VEHICLE POWER (PAGE 9-186).
8. DATA LOAD/VERIFY VEHICLE SOFTWARE (PAGE 9-383).



End of Task

3w5364

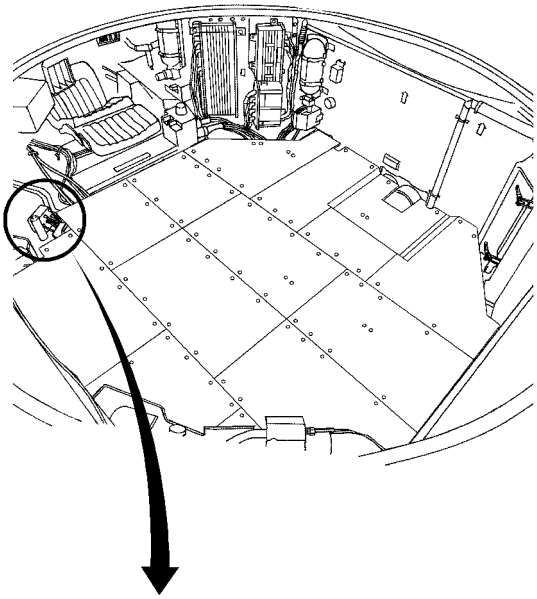
DATA BUS COUPLER (DBC) 2T610 REPLACEMENT (Sheet 1 of 2)

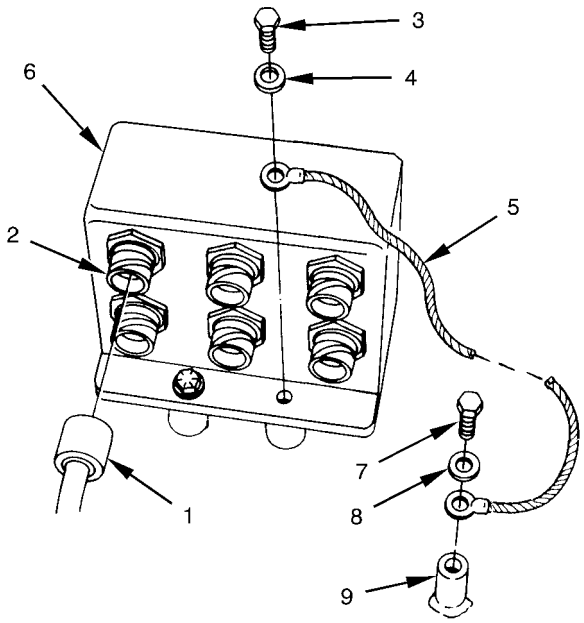
TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)

EQUIPMENT CONDITION: Vehicle power disconnected (page 9-159)
Mounting plate removed (page 28-18)
Crew floor plate (No. 8) removed (page 19-133)

REMOVAL:

1. REMOVE FIVE HARNESS CONNECTORS (1) FROM RECEPTACLE CONNECTORS (2).
2. REMOVE FOUR SCREWS (3), WASHERS (4), AND ELECTRICAL LEAD (5) FROM COUPLER (6).
3. INSPECT LEAD (5) FOR DAMAGE. IF DAMAGED, REMOVE SCREW (7), WASHER (8), AND LEAD (5) FROM HULL FLOOR STANDOFF (9).
4. INSPECT ALL OTHER PARTS FOR DAMAGE. REPLACE AS REQUIRED.





Go on to Sheet 2

habw4001

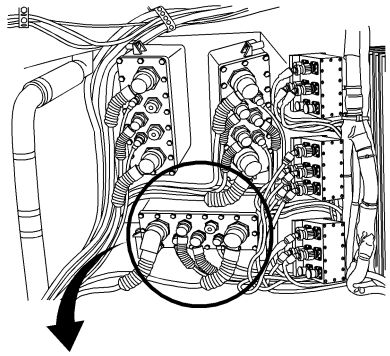
REMOTE SWITCHING MODULE RSM #4 REPLACEMENT (Sheet 1 of 2)

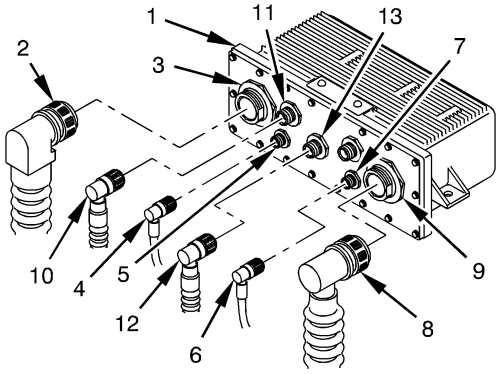
TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)

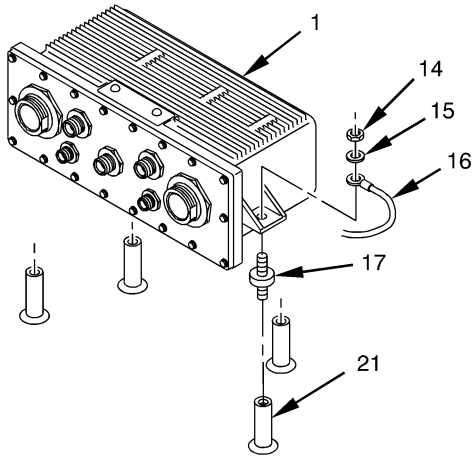
EQUIPMENT CONDITION: Commander's seat removed for access (page 19-98)
Vehicle power disconnected (page 9-159)

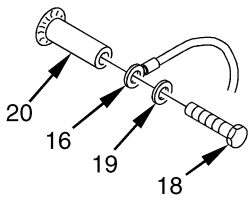
REMOVAL:

1. REMOVE REMOTE SWITCHING MODULE (1).
   a. Disconnect harness connector 2W100-P3 (2) from connector 2A130-J1 (3) and connector 2W641-10P2 (4) from connector 2A130-J2 (5) on module (1).
   b. Disconnect harness connector 2W642-10P2 (6) from connector 2A130-J3 (7) and connector 2W117-10P1 (8) from connector 2A130-J4 (9) on module (1).
   c. Disconnect harness connector 2W102-10P1 (10) from connector 2A130-J5 (11) and connector 2W117-10P8 (12) from connector 2A130-UJ1 (13) on module (1).
   d. Remove four nuts (14), washers (15), and electrical lead (16) from module (1).
   e. Remove module (1) and from resilient mounts (17).
2. INSPECT LEAD (16) FOR DAMAGE. IF DAMAGED, REMOVE SCREW (18), WASHER (19), AND LEAD (16) FROM BOSS (20).
3. INSPECT MOUNTS (17) FOR DAMAGE. IF ANY MOUNT (17) IS DAMAGED, REMOVE MOUNT (17) FROM BOSS (21).
4. INSPECT ALL OTHER PARTS FOR DAMAGE. REPLACE AS REQUIRED.









Go on to Sheet 2

3h1214

REMOTE SWITCHING MODULE RSM #4 REPLACEMENT (Sheet 2 of 2)

INSTALLATION:

NOTE

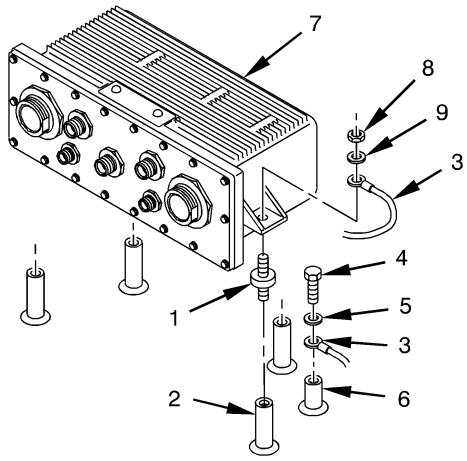
If any mount (1) is new, do step 1.

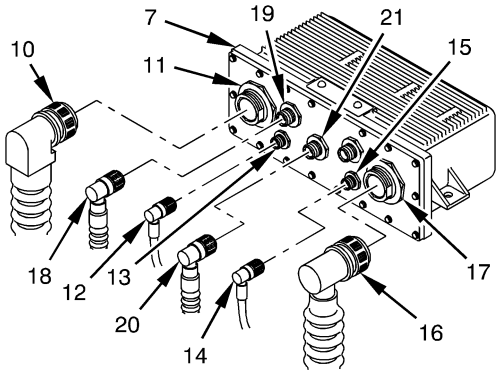
1. INSTALL NEW MOUNT (1) TO BOSS (2).

NOTE

If lead (3) is new, do step 2.

2. INSTALL SCREW (4), WASHER (5), AND NEW LEAD (3) TO BOSS (6).
3. INSTALL MODULE (7).
   a. Position module (7) on four mounts (1).
   b. Install four nuts (8), washers (9), and lead (3) to module (7).
   c. Join harness connector 2W100-P3 (10) to connector 2A130-J1 (11) and connector 2W641-10P2 (12) to connector 2A130-J2 (13) on module (7).
   d. Join harness connector 2W642-10P2 (14) to connector 2A130-J3 (15) and connector 2W117-10P1 (16) to connector 2A130-J4 (17) on module (7).
   e. Join harness connector 2W102-10P1 (18) to connector 2A130-J5 (19) and connector 2W117-10P8 (20) to connector 2A130-UJ1 (21) on module (7).
4. CONNECT VEHICLE POWER (PAGE 9-186).
5. INSTALL COMMANDER'S SEAT (PAGE 19-98).





End of Task 3h1215

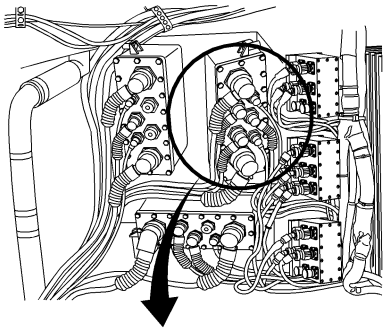
REMOTE SWITCHING MODULE RSM #5 REPLACEMENT (Sheet 1 of 2)

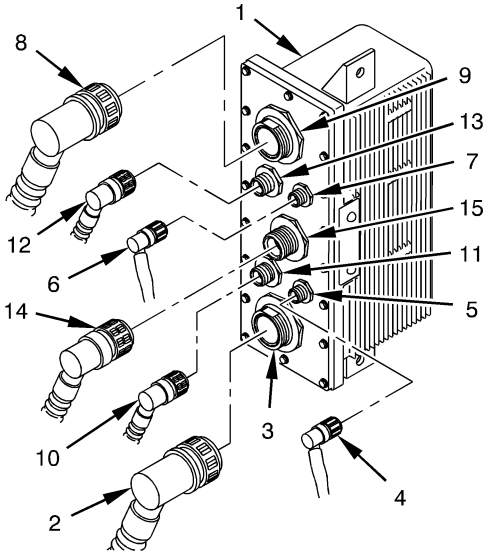
TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)

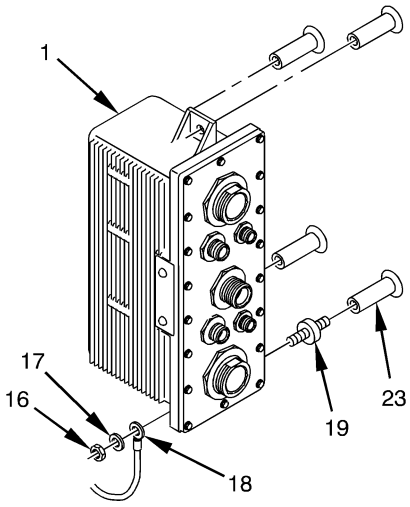
EQUIPMENT CONDITION: Commander's seat removed for access (page 19-98)
Vehicle power disconnected (page 9-159)

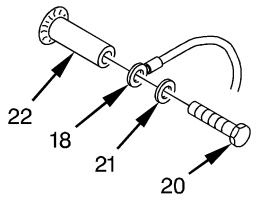
REMOVAL:

1. REMOVE REMOTE SWITCHING MODULE (1).
   a. Disconnect harness connector 2W100-P4 (2) from connector 2A131-J1 (3) and connector 2W635-10P2 (4) from connector 2A131-J2 (5) on module (1).
   b. Disconnect harness connector 2W636-10P2 (6) from connector 2A131-J3 (7) and connector 2W107-10P1 (8) from connector 2A131-J4 (9) on module (1).
   c. Disconnect harness connector 2W107-10P5 (10) from connector 2A131-J5 (11), connector 2W100-P6 (12) from connector 2A131-J6 (13), and connector 2W140-10P9 (14) from connector 2A131-UJ1 (15), on module (1).
   d. Remove four nuts (16), washers (17), and electrical lead (18) from module (1).
   e. Remove remote switching module (1) from four resilient mounts (19).
2. INSPECT LEAD (18) FOR DAMAGE. IF DAMAGED, REMOVE SCREW (20), WASHER (21), AND LEAD (18) FROM BOSS (22).
3. INSPECT FOUR MOUNTS (19) FOR DAMAGE. IF ANY MOUNT (19) IS DAMAGED, REMOVE MOUNT (19) FROM BOSS (23).
4. INSPECT ALL OTHER PARTS FOR DAMAGE. REPLACE AS REQUIRED.









Go on to Sheet 2

3h1216

REMOTE SWITCHING MODULE RSM #5 REPLACEMENT (Sheet 2 of 2)

INSTALLATION:

NOTE

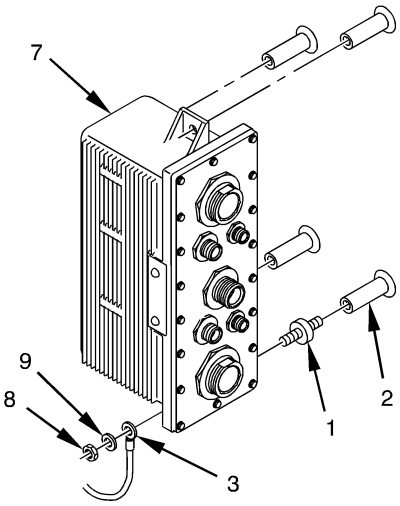
If any mount (1) is new, do step 1.

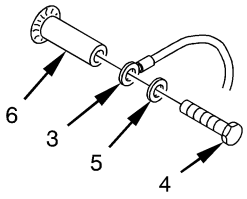
1. INSTALL NEW MOUNT (1) BOSS (2).

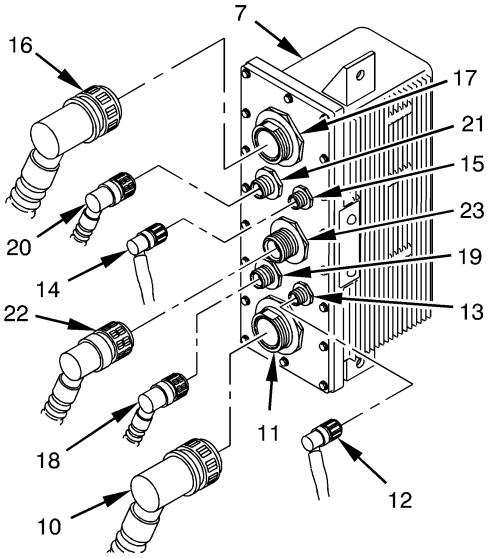
NOTE

If lead (3) is new, do step 2.

2. INSTALL SCREW (4), WASHER (5) AND NEW LEAD (3) TO BOSS (6).
3. INSTALL MODULE (7).
   a. Position module (7) on four mounts (1).
   b. Install four nuts (8), washers (9), and lead (3) to module (7).
   c. Join harness connector 2W100-P4 (10) to connector 2A131-J1 (11) and connector 2W635-10P2 (12) to connector 2A131-J2 (13) on module (7).
   d. Join harness connector 2W636-10P2 (14) to connector 2A131-J3 (15) and connector 2W107-10P1 (16) to connector 2A131-J4 (17) on module (7).
   e. Join harness connector 2W107-10P5 (18) to connector 2A131-J5 (19), connector 2W100-P6 (20) to connector 2A131-J6 (21), and connector 2W140-10P9 (22) to connector 2A131-UJ1 (23), on module (7).
4. CONNECT VEHICLE POWER (PAGE 9-186).
5. INSTALL COMMANDER'S SEAT (PAGE 19-98).







End of Task 3h1217

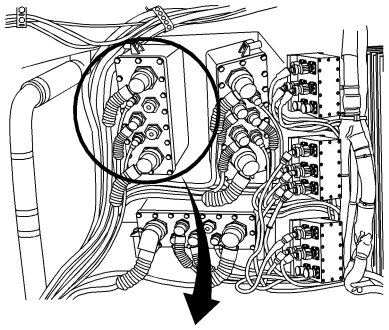
REMOTE SWITCHING MODULE RSM #6 REPLACEMENT (Sheet 1 of 2)

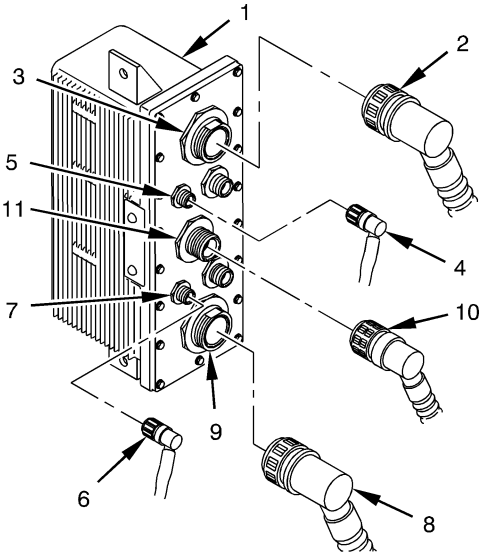
TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)

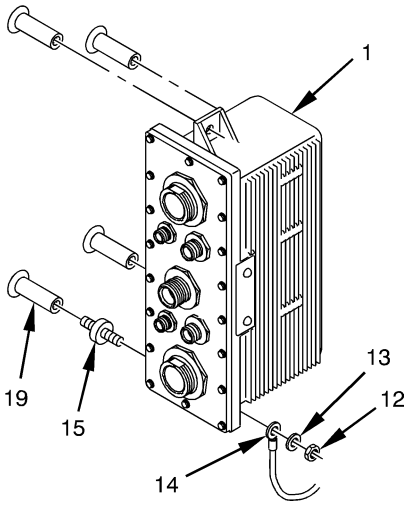
EQUIPMENT CONDITION: Commander's seat removed for access (page 19-98)
Vehicle power disconnected (page 9-159)

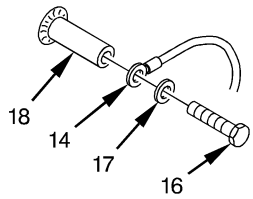
REMOVAL:

1. REMOVE REMOTE SWITCHING MODULE (1).
   a. Disconnect harness connector 2W100-P5 (2) from connector 2A139-J1 (3) and connector 2W639-10 P2 (4) from connector 2A139-J2 (5), on module (1).
   b. Disconnect harness connector 2W640-10 P2 (6) from connector 2A139-J3 (7), connector 2W117-10 P2 (8) from connector 2A139-J4 (9), and connector 2W140-10 P14 (10) from connector 2A139-UJ1 (11), on module (1).
   c. Remove four nuts (12), washers (13), and electrical lead (14) from module (1).
   d. Remove module (1) from four resilient mounts (15).
2. INSPECT LEAD (14) FOR DAMAGE. IF DAMAGED, REMOVE SCREW (16), WASHER (17), AND LEAD (14) FROM BOSS (18).
3. INSPECT MOUNTS (15) FOR DAMAGE. IF ANY MOUNT (15) IS DAMAGED, REMOVE MOUNT (15) FROM BOSS (19).
4. INSPECT ALL OTHER PARTS FOR DAMAGE. REPLACE AS REQUIRED.









Go on to Sheet 2

3h1218

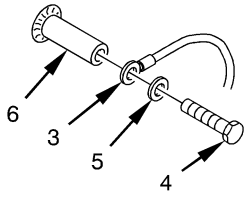
REMOTE SWITCHING MODULE RSM #6 REPLACEMENT (Sheet 2 of 2)

INSTALLATION:

NOTE

If any mount (1) is new, do step 1.

1. INSTALL NEW MOUNT (1) TO BOSS (2).



NOTE

If lead (3) is new, do step 2.

2. INSTALL SCREW (4), WASHER (5) AND NEW LEAD (3) TO BOSS (6).

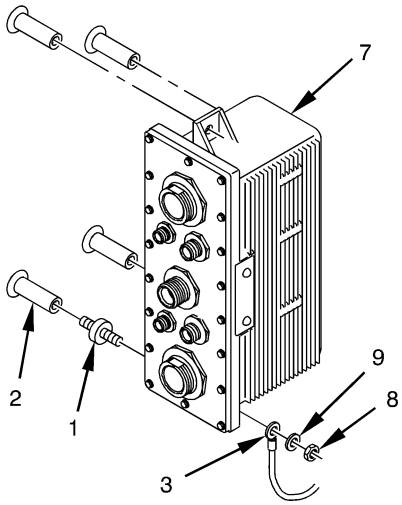
3. INSTALL MODULE (7).

   a. Aline module (7) with four mounts (1).

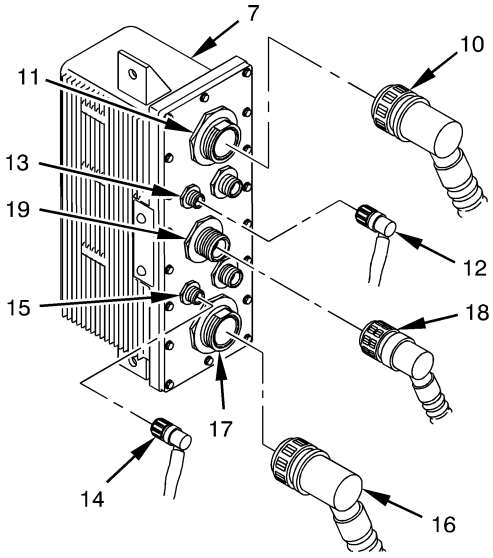
   b. Install four nuts (8), washers (9), and lead (3) on module (7).

   c. Join harness connector 2W100-P5 (10) to connector 2A139-J1 (11), connector 2W639-10 P2 (12) to connector 2A139-J2 (13), and connector 2W640-10 P2 (14) to connector 2A139-J3 (15), on module (7).

   d. Join harness connector 2W117-10 P2 (16) to connector 2A139-J4 (17) and connector 2W140-10 P14 (18) to connector 2A139-UJ1 (19), on module (7).



4. CONNECT VEHICLE POWER (PAGE 9-186).



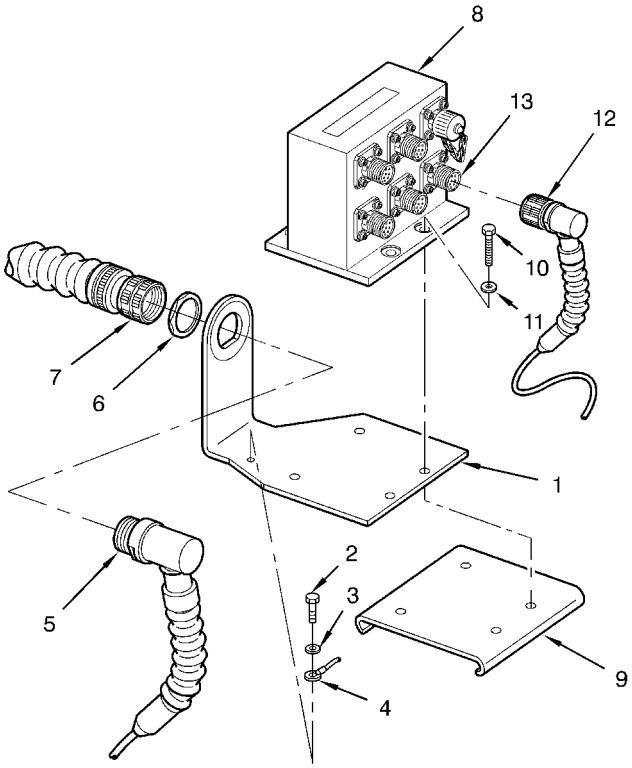
End of Task

3h1219

PULSE JET SYSTEM (PJS) UTILITY BUS COUPLER (UBC) 2T631 AND BRACKET REPLACEMENT (Sheet 2 of 2)

INSTALLATION:

1. INSTALL BRACKET (1).
   a. Install screw (2), washer (3), and lead (4) on bracket (1). Position connector (5) on bracket (1) and tighten jamnut (6).
   b. Connect connector (7) to connector (5).
2. INSTALL COUPLER (8).
   a. Position bracket (1) and coupler (8) on plate (9).
   b. Install four screws (10) and washers (11) on coupler (8).
3. INSTALL FIVE CONNECTORS (12) TO CONNECTORS (13) ON COUPLER (8).
4. CONNECT VEHICLE POWER (PAGE 9-186).
5. INSTALL CREW FLOOR PLATE (NO. 11) (PAGE 19-136).



End of Task

2w7030

PULSE CONTROL UNIT REPLACEMENT (Sheet 1 of 1)

TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)

SUPPLIES: Lockwasher (Item 117, Appendix G)

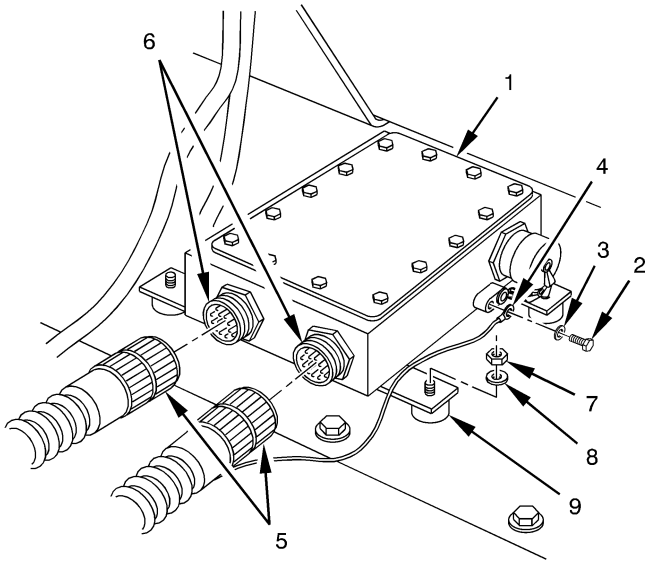
EQUIPMENT CONDITION: Vehicle power disconnected (page 9-159)

REMOVAL:

1. REMOVE CONTROL UNIT (1).
   a. Remove screw (2), lockwasher (3), and jumper (4) from control unit (1).
   b. Remove two connectors (5) from receptacles (6).
   c. Remove four nuts (7) and washers (8) attaching control unit (1) to four floor mounts (9). Remove control unit (1).
2. INSPECT PARTS FOR DAMAGE. REPLACE AS REQUIRED.

INSTALLATION:

1. INSTALL CONTROL UNIT (1).
   a. Position control unit (1) on four floor mounts (9).
   b. Install four nuts (7) and washers (8).
   c. Install two connectors (5) to receptacles (6).
   d. Install screw (2), new lockwasher (3), and jumper (4) to control unit (1).
2. CONNECT VEHICLE POWER (PAGE 9-186).



End of Task

habw7031

TEMPERATURE CONTROLLER ANGLE BRACKET REPLACEMENT (Sheet 1 of 1)

TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)

SUPPLIES: Lockwasher (Item 111, Appendix G) (4 required)

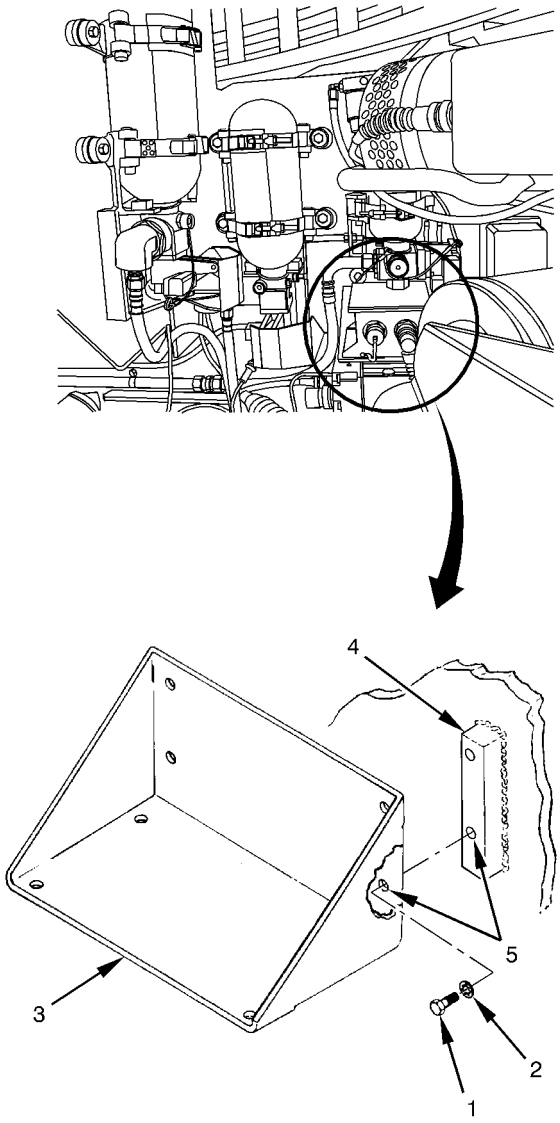
EQUIPMENT CONDITION: Air temperature controller removed (page 9-83)

REMOVAL:

1. REMOVE FOUR SCREWS (1) AND LOCKWASHERS (2) FROM BRACKET (3) AND PAD (4). REMOVE BRACKET (3).
2. INSPECT PARTS FOR DAMAGE. REPLACE AS REQUIRED.

INSTALLATION:

1. PUT BRACKET (3) ON PAD (4). ALINE HOLES (5) IN BRACKET (3) AND PAD (4) AND INSTALL FOUR SCREWS (1) AND NEW LOCKWASHERS (2).
2. INSTALL AIR TEMPERATURE CONTROLLER (PAGE 9-83).



End of Task

habw1608

DIGITAL ELECTRONIC CONTROL UNIT (DECU) REPLACEMENT (Sheet 1 of 4)

TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)
Extension, 3/8-inch drive, 6-inch (Item 77, Appendix E)
Ratchet handle, 3/8-inch drive (Item 109, Appendix E)
Socket, 3/8-inch drive, 7/16-inch (Item 234, Appendix E)
Torque wrench, 0-175 ft-lb (Item 324, Appendix E)
Torque wrench, 0-200 in-lb (Item 325, Appendix E)

SUPPLIES: Lockwasher (Item 136, Appendix G) (4 required)

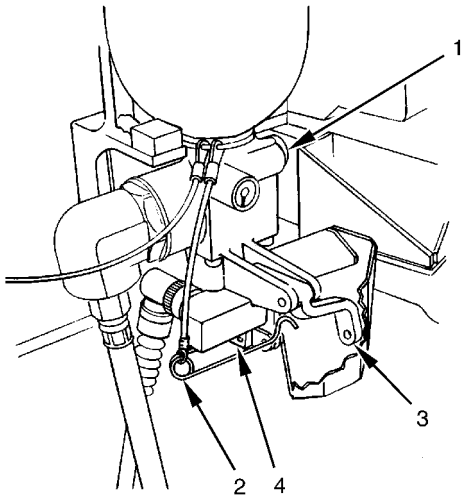
EQUIPMENT CONDITION: Temperature controller angle bracket removed (page 9-89)
Fire extinguisher control amplifier removed (page 27-6)

NOTE

There are two types of fire bottle valves (1). One is shown.

REMOVAL:

1. INSERT PIN (2) THROUGH FIRE BOTTLE LEVER (3) AND BRACKET (4).



Go on to Sheet 2

3w4029

NH TRIM CALIBRATION (Sheet 2 of 3)

NOTE

Engine trim calibration can only be accessed from either the PRE/POST or COMBAT mode.

3. PRESS MAINT/BACKUP PUSHBUTTON (1) ON MAIN MENU (2)

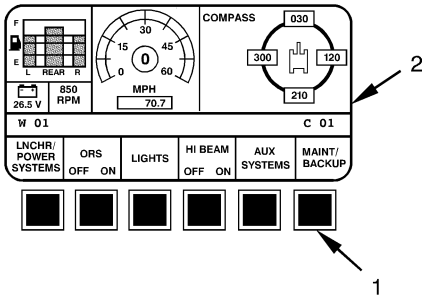
4. PRESS STATUS PUSHBUTTON (3) ON MAINTENANCE/BACKUP MENU (4).

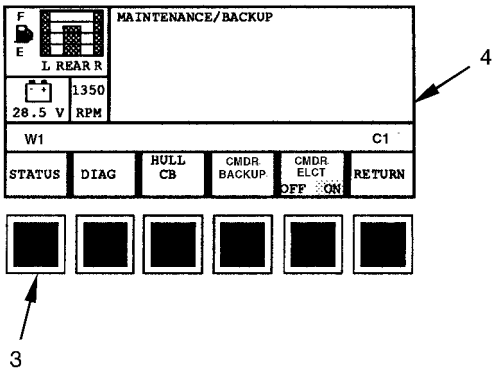
5. PRESS ENGINE TRIM CAL PUSHBUTTON (5) ON DID STATUS MENU (6).

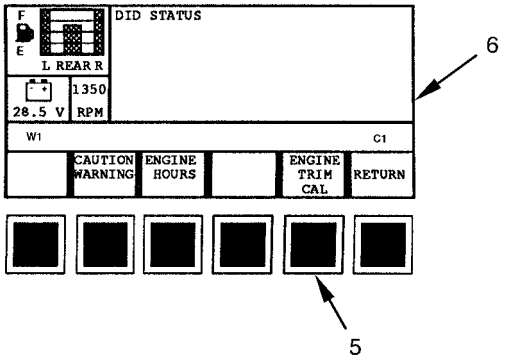
NOTE

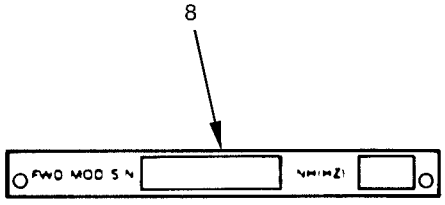
The DECU will only accept trim values between 2034 and 2164 Hz.

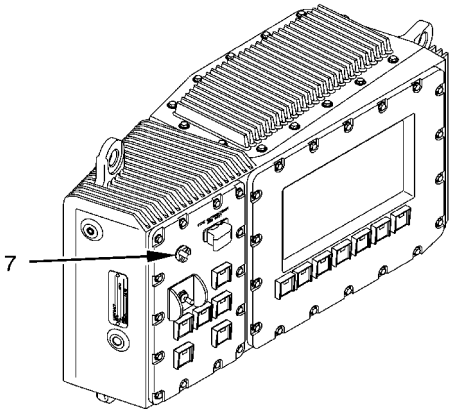
6. USING 4-WAY SWITCH (7) (UP-DOWN), ENTER ENGINE NH TRIM VALUE FROM PLATE (8). USE 4-WAY SWITCH (7) (RIGHT-LEFT) TO MOVE CURSOR TO NEXT POSITION.









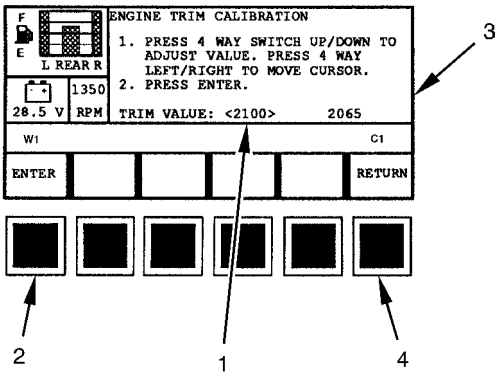


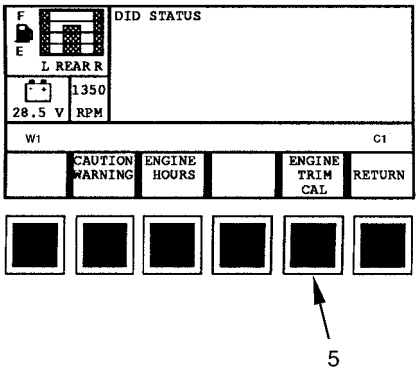
Go on to Sheet 3

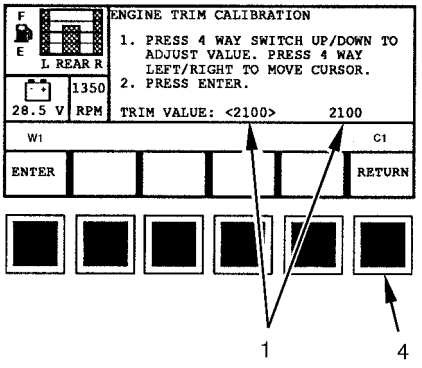
habw4406

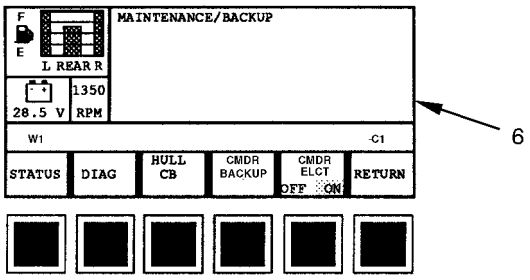
NH TRIM CALIBRATION (Sheet 3 of 3)

7. ONCE NEW VALUE (1) HAS BEEN ENTERED, PRESS ENTER PUSHBUTTON (2) ON ENGINE TRIM CALIBRATION MENU (3).
8. PRESS RETURN PUSHBUTTON (4) AND THEN PRESS ENGINE TRIM CAL BUTTON (5) TO VERIFY NEW TRIM VALUE (1) WAS ACCEPTED BY DECU.
9. PRESS RETURN PUSHBUTTON (4) TWO TIMES TO RETURN TO MAINTENANCE/ BACKUP MENU (6).
10. SET VEHICLE MASTER POWER SWITCH TO OFF (TM 5-5420-232-10).
11. INSTALL ENGINE STEP PLATE (PAGE 4-11).
12. CLOSE REAR ARM (PAGE 17-189).









End of Task

sepw4530

HULL MISSION PROCESSOR UNIT (HMPU) REPLACEMENT (Sheet 2 of 2)

INSTALLATION:

NOTE

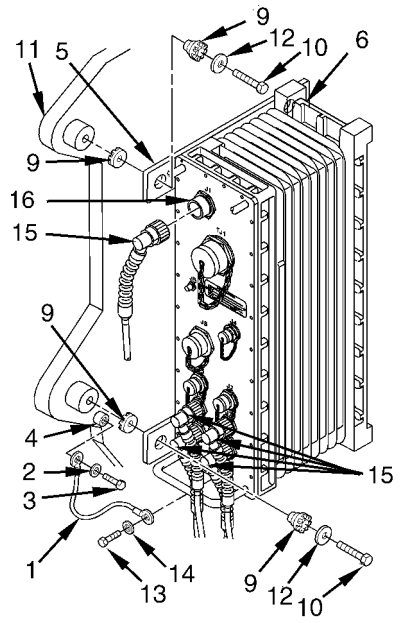
If lead (1) is new, do step 1.

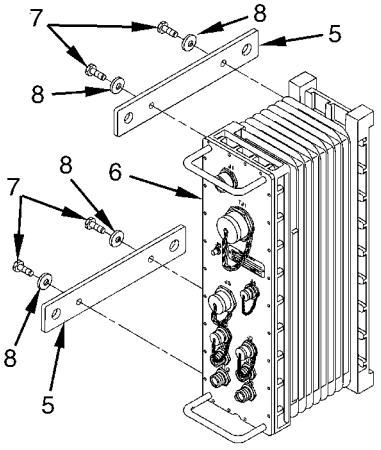
1. HCP PUT WASHER (2) AND NEW LEAD (1) ON SCREW (3). INSTALL SCREW (3) ON STANDOFF (4).
2. INSTALL TWO PLATES (5) AND HMPU (6). TORQUE SCREWS (7) BETWEEN 36-43 LB-FT (49-58 N•m).
   a. Install four screws (7), washers (8), and two plates (5) on HMPU (6). Torque screws (7) between 36-43 LB-FT (49-58 N•m).
   b. Put eight mount halves (9) in plates (5).
   c. Apply sealing compound on threads of four screws (10).
   d. Aline HMPU (6) with plate (11). Install screws (10) and washers (12).
3. TORQUE SCREWS (10) BETWEEN 36-43 LB-FT (49-58 N•m).
4. HCP INSTALL SCREW (13), WASHER (14) AND LEAD (1) ON HMPU (6).
5. INSTALL FIVE CONNECTORS (15) TO CONNECTORS (16) ON HMPU (6).
6. CONNECT VEHICLE POWER (PAGE 9-186).
7. DATA LOAD/VERIFY VEHICLE SOFTWARE (PAGE 9-383).
8. VIEW STATUS-DIAGNOSTICS MODE TO VERIFY SYSTEM DATA MATCHES DATA RECORDED PRIOR TO REMOVAL OF UNIT (TM 5-5420-232-10).

NOTE

If data viewed in step 9 is different, do step 10.

9. ENTER SYSTEM DATA, IF REQUIRED (PAGE 9-383).





End of Task

sepw5367

DISCONNECT PANEL IDENTIFICATION PLATE REPLACEMENT (Sheet 1 of 3)

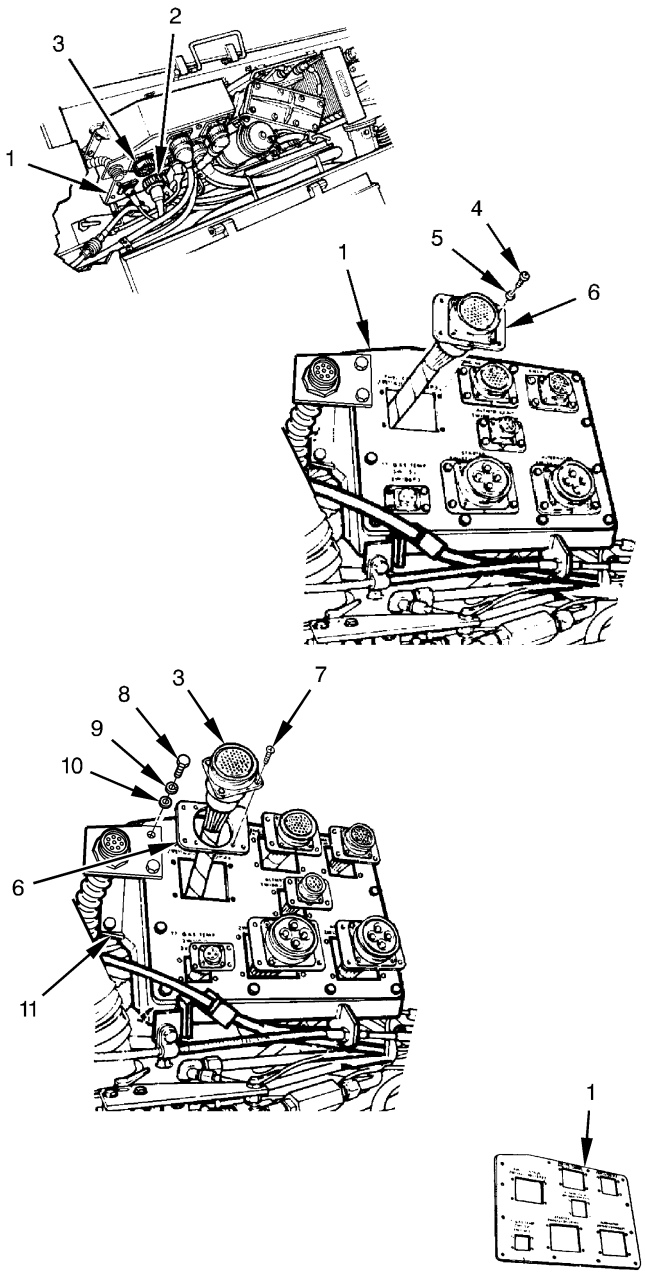
TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)

SUPPLIES: Lockwasher (Item 110, Appendix G) (28 required)
Lockwasher (Item 117, Appendix G) (12 required)
Sealing compound (Item 109, Appendix C)

EQUIPMENT CONDITION: Vehicle power disconnected (page 9-159)
Top deck right grille doors opened (TM 5-5420-232-10)

REMOVAL:

1. REMOVE PLATE (1).
   a. Disconnect seven plug connectors (2) from receptacle connectors (3).
   b. Remove 28 screws (4) and lockwashers (5) holding 14 electrical retaining plates (6) to plate (1).
   c. Remove 28 screws (7) holding seven connectors (3) to 14 plates (6).
   d. Remove 12 screws (8), lockwashers (9), and washers (10) from plate (1).
   e. Remove plate (1) from panel box (11).
2. INSPECT PARTS FOR DAMAGE. REPLACE AS REQUIRED.



Go on to Sheet 2

habw1348

STOPLIGHT-TAILLIGHT REPLACEMENT (Sheet 1 of 3)

TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)
Extension, 3/8-inch drive, 6-inch (Item 77, Appendix E)
Ratchet handle, 3/8-inch drive (Item 109, Appendix E)
Socket, 3/8-inch drive, 9/16-inch (Item 235, Appendix E)
Torque wrench, 0-60 N•m (Item 330, Appendix E)

SUPPLIES: Lockwasher (Item 111, Appendix G) (2 required)
Sealing Compound (Item 109, Appendix C)

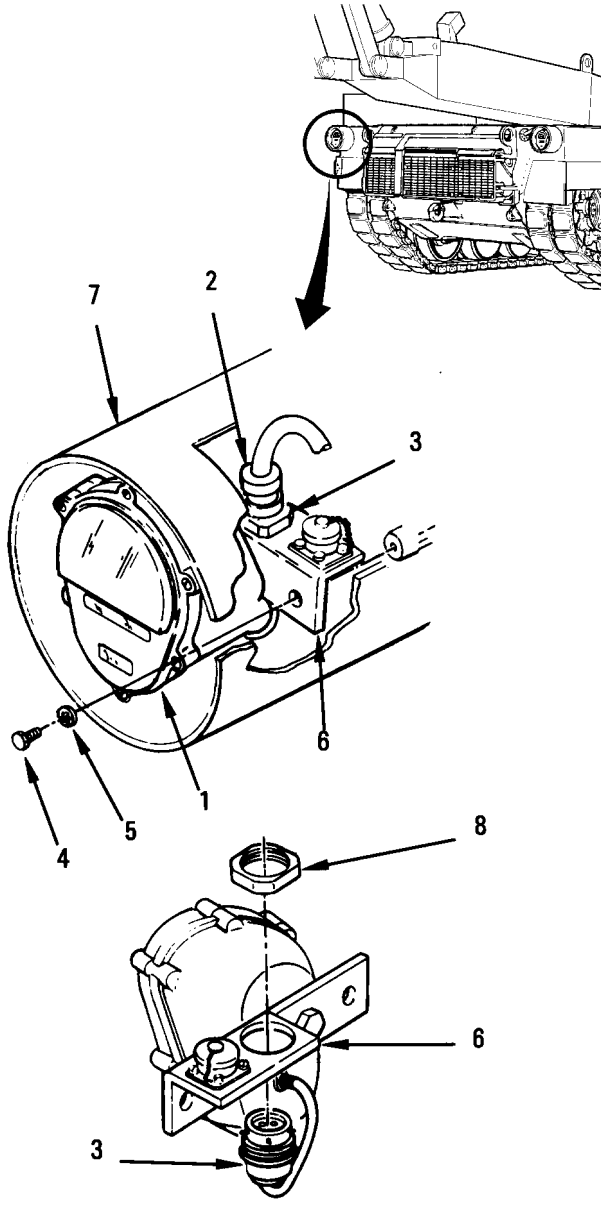
REFERENCES: TM 5-5420-232-10

NOTE

Use this task for left or right side stoplight-taillight (1). Left side is shown.

REMOVAL:

1. REMOVE STOPLIGHT-TAILLIGHT (1).
   a. Disconnect plug connector (2) from receptacle connector (3).
   b. Remove two screws (4) and lockwashers (5) from bracket (6).
   c. Pull out stoplight-taillight (1) and bracket (6) from protective ring (7).
2. REMOVE BRACKET (6).
   a. Remove retaining nut (8) from connector (3). Pull connector (3) from bracket (6).



Go on to Sheet 2

habw1340

STOPLIGHT-TAILLIGHT REPLACEMENT (Sheet 2 of 3)

b. Remove two screws (1), washers (2), and sleeve bushings (3) from bracket (4) and stoplight-taillight (5).

c. Pull bracket (4) off stoplight-taillight (5). Pull two grommets (6) off bracket (4).

3. INSPECT BRACKET (4) FOR DAMAGE. IF DAMAGED, REMOVE STOPLIGHT-TAILLIGHT RECEPTACLE DUMMY CONNECTOR (PAGE 9-146).

4. INSPECT ALL PARTS FOR CORROSION OR DAMAGE. REPLACE AS REQUIRED.

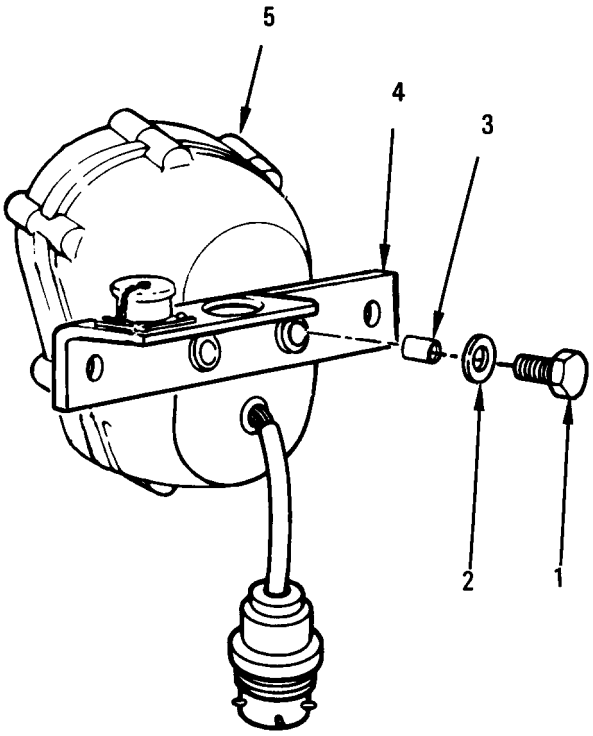
INSTALLATION:

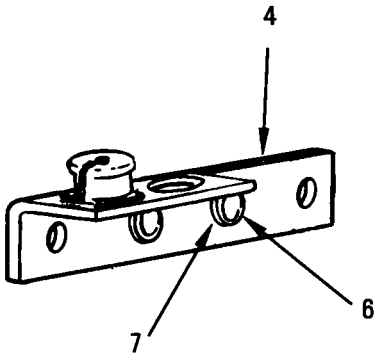
1. INSTALL TWO GROMMETS (6) IN HOLES (7) OF BRACKET (4).

CAUTION

Screws (1) must not be overtorqued. Equipment damage could result.

2. INSTALL BRACKET (4). APPLY SEALING COMPOUND TO THREADS OF TWO SCREWS (1). INSTALL AND TORQUE TWO SCREWS (1) BETWEEN 24-26 N•m (18-20 LB-FT).





Go on to Sheet 3

2w1341

STOPLIGHT-TAILLIGHT REPLACEMENT (Sheet 3 of 3)

a. Position bracket (1) on back of stoplight-taillight (2).

b. Apply sealing compound to threads of two screws (3). Install screws (3), bushings (4), and washers (5).

c. Torque screws (3) between 24-26 N•m (18-20 lb-ft).

d. Put connector (6) in bracket (1). Install nut (7) to connector (6).

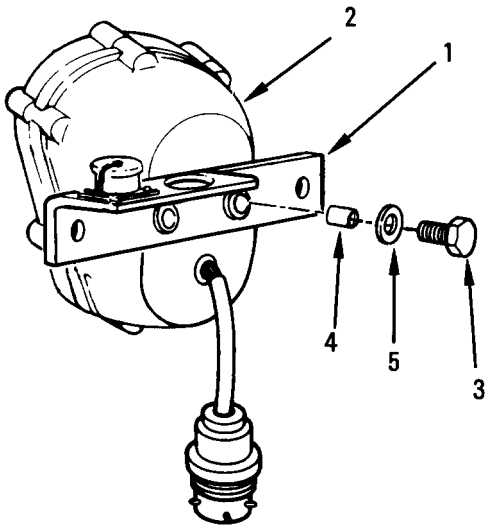
3. INSTALL STOPLIGHT-TAILLIGHT (2).

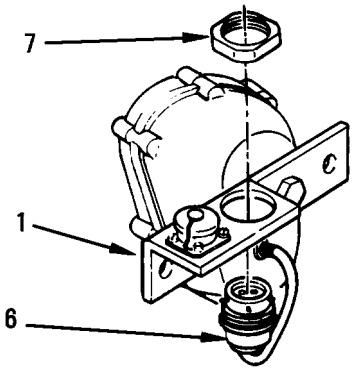
a. Position taillight (2) in ring (8).

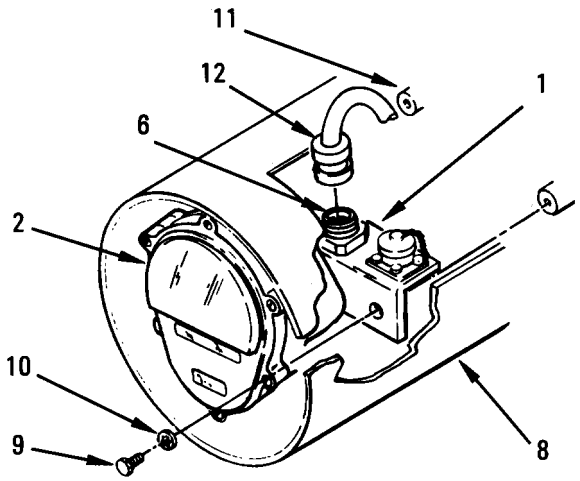
b. Install two screws (9) and new lockwashers (10) in bracket (1) and bosses (11).

c. Screw connector (12) on receptacle (6).

4. CHECK OPERATION OF TAILLIGHTS (TM 5-5420-232-10).







End of Task

2w1342

STOPLIGHT-TAILLIGHT LIGHT LENS AND PACKING REPLACEMENT (Sheet 1 of 1)

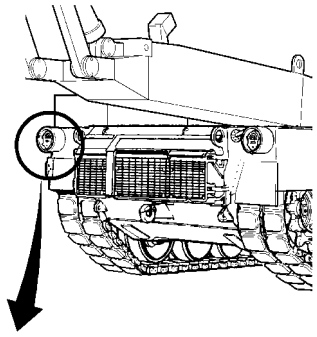
TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)

SUPPLIES: Preformed packing (Item 229, Appendix G)

REFERENCES: TM 5-5420-232-10

NOTE

Use this task for left or right side lens (1). Left side lens (1) is shown.

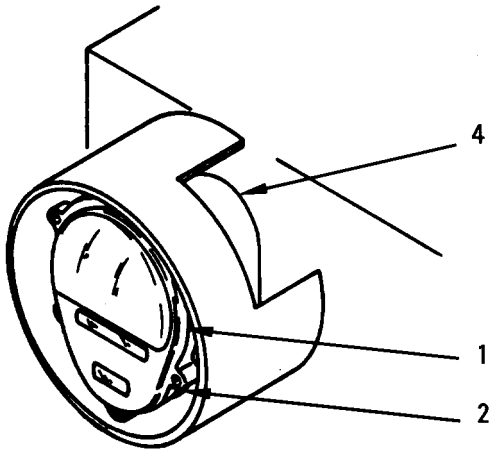


REMOVAL:

NOTE

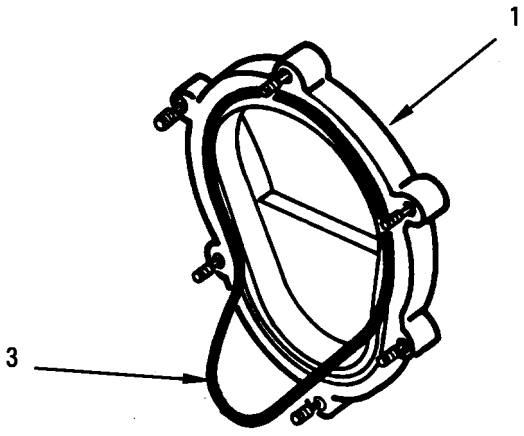
Screws (2) do not come out of holes. They will stay in when lens (1) comes off.

1. REMOVE LENS (1) AND PACKING (3).
   a. Loosen six screws (2) and lift lens (1) off taillight body (4).
   b. Pry packing (3) from groove in lens (1).
2. INSPECT PARTS FOR DAMAGE. REPLACE AS REQUIRED.



INSTALLATION:

1. INSTALL NEW PACKING (3) AND LENS (1).
   a. Install packing (3) in groove of lens (1).
   b. Hold lens (1) on body (4). Install six screws (2).
2. CHECK OPERATION OF TAILLIGHTS (TM 5-5420-232-10).



End of Task

habw1343

All data on page 9-145 deleted.

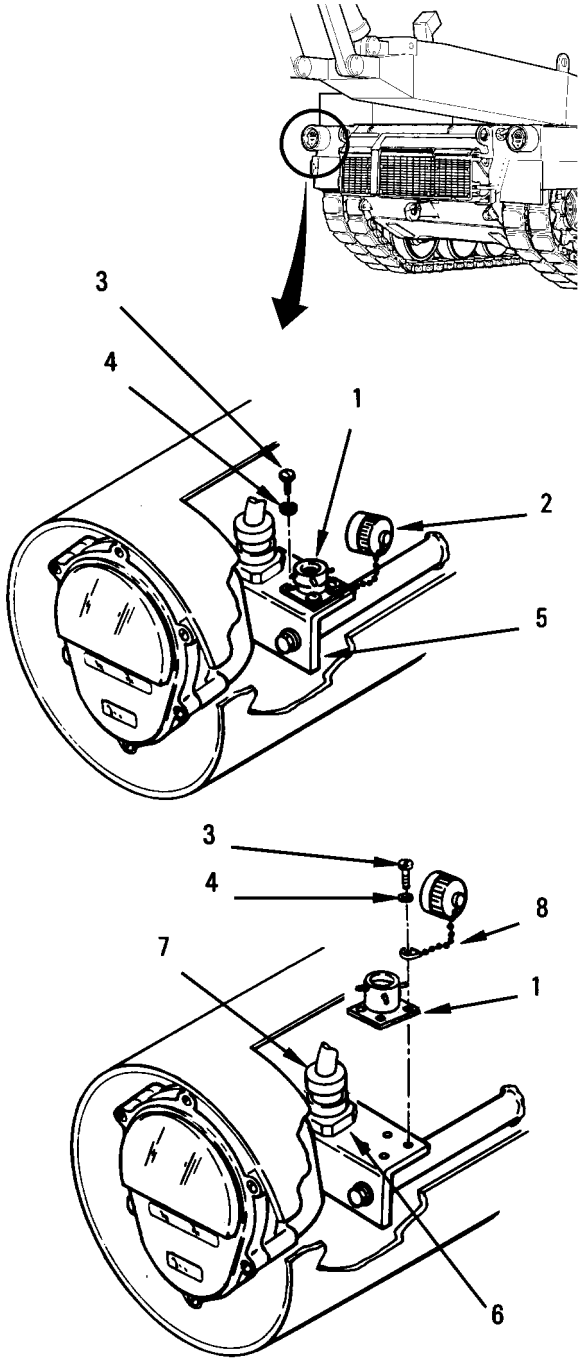
STOPLIGHT-TAILLIGHT RECEPTACLE DUMMY CONNECTOR REPLACEMENT (Sheet 1 of 1)

TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)

SUPPLIES: Lockwasher (Item 140, Appendix G) (4 required)

NOTE

Use this task for left or right side connector (1). Left side is shown.



REMOVAL:

1. REMOVE CONNECTOR (1).
   a. Remove electrical connector cover (2).
   b. Remove four screws (3) and lockwashers (4) from connector (1) and bracket (5).
2. INSPECT PARTS FOR CORROSION OR DAMAGE. REPLACE AS REQUIRED.

INSTALLATION:

INSTALL CONNECTOR (1) LIKE RECEPTACLE CONNECTOR (6).

a. Disconnect plug connector (7) from connector (6). Make sure that connector (1) is positioned exactly like connector (6).
b. Install four screws (3), new lockwashers (4), and cover chain (8).
c. Install cover (2) on connector (1).
d. Join connector (7) to connector (6).

End of Task habw1344

LOWER DOMELIGHT HOUSING SPECIAL SEAL REPLACEMENT (Sheet 1 of 2)

TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)
Chemical and oil protective gloves (Item 90, Appendix E)
Industrial goggles (Item 92, Appendix E)

SUPPLIES: Acid swabbing brush (Item 26, Appendix C)
Dry cleaning solvent (Item 48, Appendix C)
Nonmetallic special seal (Item 414, Appendix G)
Sealant adhesive (Item 4, Appendix C)
Wiping rag (Item 94, Appendix C)

EQUIPMENT CONDITION: Domelight door opened and lamp removed (TM 5-5420-232-10)
Domelight removed (page 9-151)

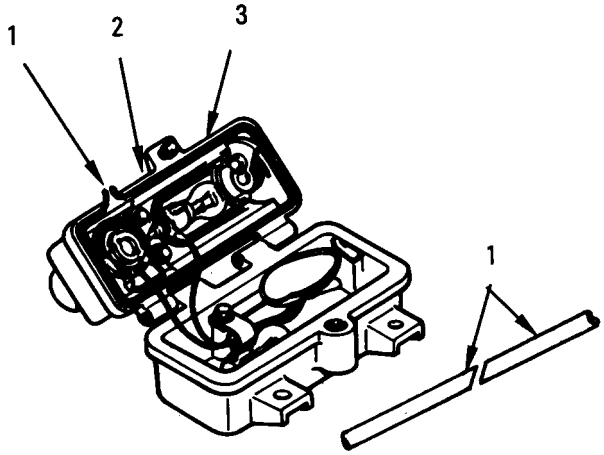
REMOVAL:

WARNING

REMOVE SEAL (1). CLEAN OFF ADHESIVE WITH SOLVENT AND RAG.

a. Pry seal (1) from housing (2).

b. Clean adhesive from groove (3) with solvent and rag.



INSTALLATION:

WARNING

1. CUT NEW SEAL (1) TO LENGTH AND INSTALL.

   a. Lay seal (1) around groove (3) in housing (2). Cut ends of seal (1) so that ends overlap about 1/4-inch (6.4 mm).

   b. Remove seal (1) from groove (3). Cut two ends of seal (1) at an angle.

   c. Apply adhesive in groove (3) with brush.

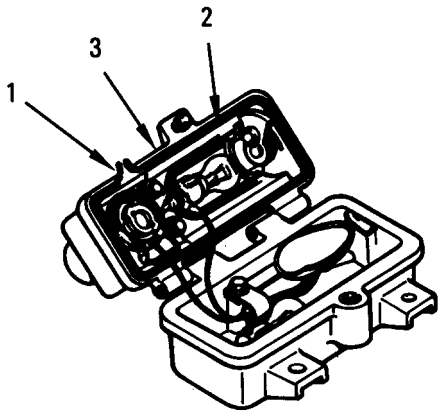
Go on to Sheet 2

2w1361

LOWER DOMELIGHT HOUSING SPECIAL SEAL REPLACEMENT (Sheet 2 of 2)

d. Put seal (1) in groove (2). Make sure ends of seal (1) do not meet at a corner of housing (3).

e. Wipe off excess adhesive from seal (1) and housing (3) with solvent and rag. Let seal (1) dry for 1 hour before closing housing (3).



2. INSTALL DOMELIGHT (PAGE 9-152).

3. INSTALL LAMP AND CLOSE DOMELIGHT DOOR (TM 5-5420-232-10).

4. CHECK OPERATION OF DOMELIGHT (TM 5-5420-232-10).

End of Task

POSITIVE TERMINAL BOARD GUARD REPLACEMENT (Sheet 1 of 3)

TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)

SUPPLIES: Lockwasher (Item 110, Appendix G) (4 required)
Lockwasher (Item 117, Appendix G) (2 required)

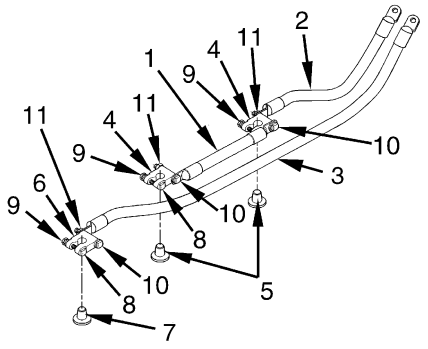
EQUIPMENT CONDITION: Vehicle power disconnected (page 9-159)

Go on to Sheet 2

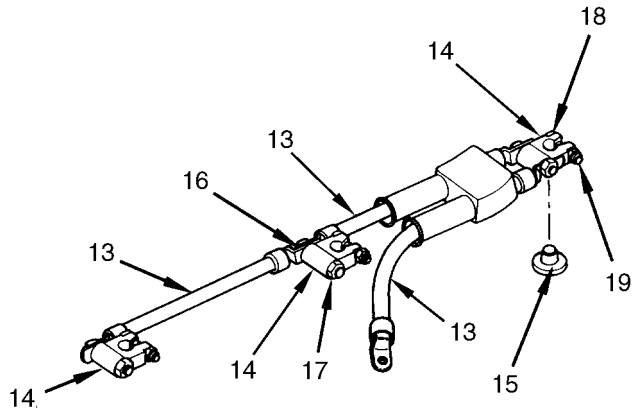
2w3555

NEGATIVE AND POSITIVE BATTERY LUG TERMINALS AND CABLE ASSEMBLIES REPLACEMENT (Sheet 11 of 11)

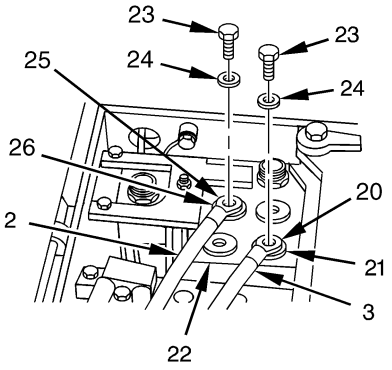
8. INSTALL ASSEMBLED POSITIVE CABLES (1, 2, 3).
   a. Put two terminals (4) of assembled cables 2W202/3 (1) and 2W213-8 (2) on two rear inboard battery posts (5).
   b. Put terminal (6) of assembled cable 2W212-8 (3) on third rear inboard battery post (7).
   c. Tighten three screws (8) and nuts (9).
   d. Tighten three screws (10) and nuts (11).



9. INSTALL ASSEMBLED NEGATIVE CABLES (13).
   a. Put three terminals (14) of cables (13) on three forward inboard battery posts (15).
   b. Tighten three screws (16) and nuts (17).
   c. Tighten three screws (18) and nuts (19).



10. INSTALL TWO POSITIVE CABLES TO PRIME POWER CONTROLLER.
    a. Aline terminal lug 2W212-8 E1 (20) of cable 2W212-8 (3) with terminal E1 (21) of prime power controller (22) and install screw (23) and washer (24).
    b. Aline terminal lug 2W213-8 E1 (25) of cable 2W213-8 (2) with terminal E4 (26) of prime power controller (22) and install screw (23) and washer (24).
11. INSTALL CABLE 2W210-8 AND CABLE 2W211-8 (PAGE 9-276).
12. INSTALL PRIME POWER CONTROLLER UPPER COVER (PAGE 9-29).
13. INSTALL POSITIVE TERMINAL GUARDS, BUT DO NOT CONNECT VEHICLE POWER (PAGE 9-160).
14. INSTALL POSITIVE TERMINAL BOARD GUARD (PAGE 9-158).



End of Task

sepw4412

TERMINAL BOARDS, SUPPORT, ANGLE BRACKETS, INSULATOR, AND ELECTRICAL INSULATION SHEET REPLACEMENT (Sheet 1 of 7)

TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)
Chemical and oil protective gloves (Item 90, Appendix E)
Impermeable apron (Item 15, Appendix E)
Industrial goggles (Item 92, Appendix E)
Pocket knife (Item 128, Appendix E)

SUPPLIES: Sealant adhesive (Item 14, Appendix C)
Lockwasher (Item 111, Appendix G) (9 required)
Lockwasher (Item 123, Appendix G) (2 required)
Self-locking nut (Item 176, Appendix G) (6 required)
Self-locking nut (Item 172, Appendix G) (16 required)

PERSONNEL: Two

EQUIPMENT CONDITION: Negative and positive battery lug terminals and cable assemblies removed (page 9-161)

REMOVAL:

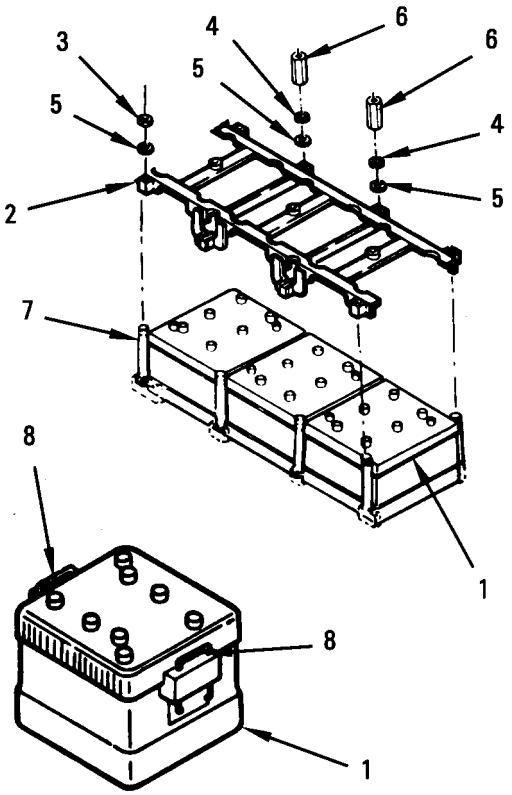
WARNING

Always wear goggles, rubber gloves, and rubber apron when handling batteries (1). Battery acid is harmful to skin and will ruin clothing.

CAUTION

Batteries (1) can crack if they are hit with pry bar.

1. REMOVE FORWARD BATTERY RETAINER (2) AND THREE BATTERIES (1).
   a. Remove six self-locking nuts (3), two lockwashers (4), eight washers (5), and two spacers (6) from retainer (2).
   b. Pry retainer (2) off eight studs (7).
   c. Hold both handles (8) and lift each battery (1) from battery compartment. Lower each battery (1) to ground.



Go on to Sheet 2

2w5025

STORAGE BATTERIES, BATTERY RETAINERS, AND PLAIN STUDS REPLACEMENT (Sheet 1 of 7)

TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)
Chemical and oil protective gloves (Item 90, Appendix E)
Deep style socket, 3/8-inch drive, 9/16-inch (Item 253, Appendix E)
Deep style socket, 1/2-inch drive, 9/16-inch (Item 246, Appendix E)
Extension, 3/8-inch drive, 6-inch (Item 77, Appendix E)
Impermeable apron (Item 15, Appendix E)
Industrial goggles (Item 92, Appendix E)
Socket, 3/8-inch drive, 7/16-inch (Item 234, Appendix E)
Torque wrench, 0-200 in-lb (Item 325, Appendix E)

SUPPLIES: Battery service kit (Item 2, Appendix G)
Lockwasher (Item 111, Appendix G) 8 required
Sealing compound (Item 109, Appendix C)
Self-locking nut (Item 176, Appendix G) 9 required

PERSONNEL: Two

EQUIPMENT CONDITION: Negative and positive battery lug terminals and cable assemblies removed (page 9-161)

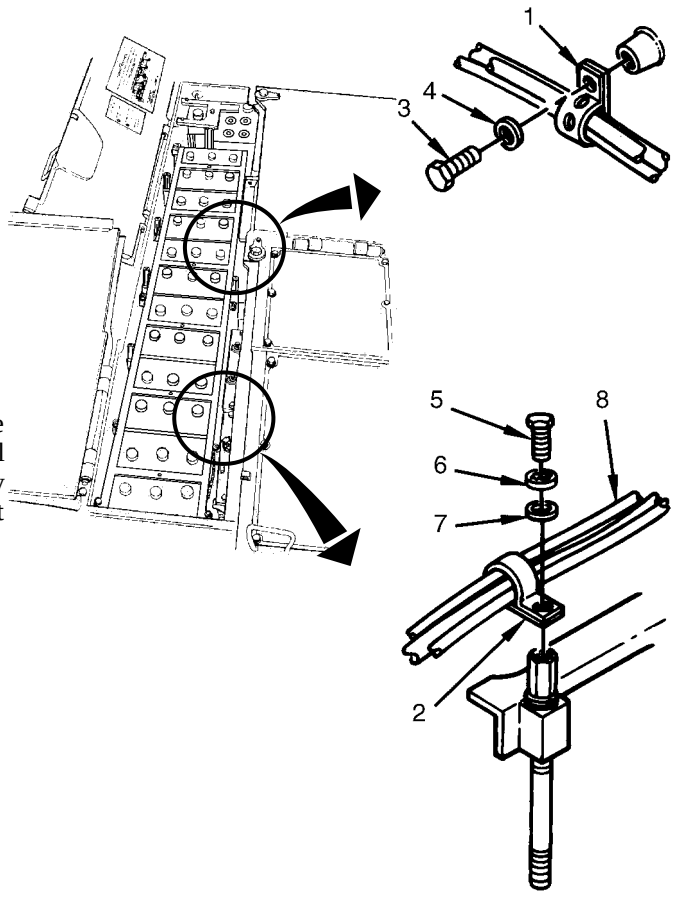
REFERENCES: TM 9-6140-200-14

REMOVAL:

WARNING

WARNING

Tools may short across positive and negative conductor buses and cause burns or electrical shock. To avoid injury when working in battery compartment, make sure that tools do not short across buses.



1. REMOVE THREE ELECTRICAL TIEDOWN STRAPS (1) AND LOOP CLAMP (2).
   a. Remove three screws (3) and washers (4) from straps (1).
   b. Remove screw (5), lockwasher (6), and washer (7) from clamp (2). Move harnesses (8) out of the way.

Go on to Sheet 2

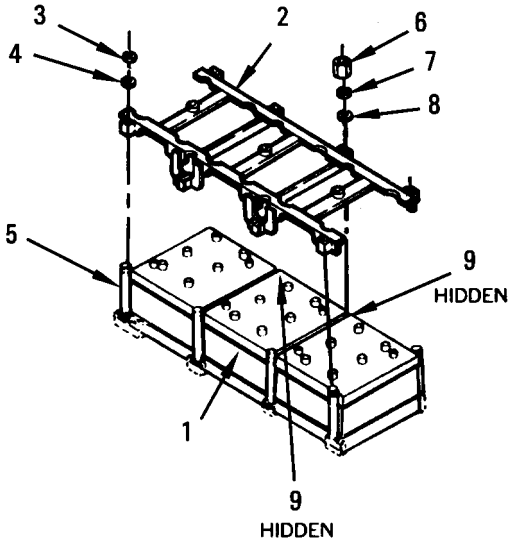
sepw4416

STORAGE BATTERIES, BATTERY RETAINERS, AND PLAIN STUDS REPLACEMENT (Sheet 2 of 7)

CAUTION

Storage batteries (1) can crack if they are hit with pry bar.

2. REMOVE TWO RETAINERS (2).
   a. Remove nine self-locking nuts (3) and washers (4) from studs (5).
   b. Remove seven spacers (6), lockwashers (7), and washers (8) from studs (9).
   c. Pry off retainers (2).
3. INSPECT PARTS FOR DAMAGE. REPLACE AS REQUIRED.



Go on to Sheet 3

3w4417

WIRING HARNESS 2W100 REPLACEMENT (Sheet 2 of 3)

d. Disconnect harness connector 2W100 P3 (1) from connector 2A130 J1 (2) on remote switching module (NO. 4) (3).

e. Disconnect harness connector 2W100 P4 (4) from connector 2A131 J1 (5), and connector 2W100 P6 (6) from connector 2A131 J6 (7) on remote switching module (NO. 5) (8).

f. Disconnect harness connector 2W100 P5 (9) from connector 2A139 J1 (10) on remote switching module (NO. 6) (11).

g. Remove harness (12) from chassis.

2. INSPECT PARTS FOR DAMAGE. REPLACE AS REQUIRED.

INSTALLATION:

1. INSTALL HARNESS (12).

a. Position harness (12) in chassis.

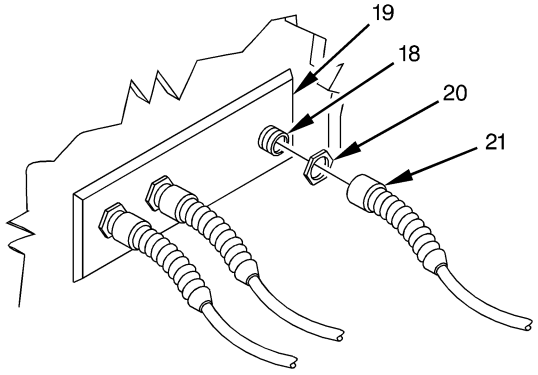
b. Join harness connector 2W100 P4 (4) to connector 2A131 J1 (5), and connector 2W100 P6 (6) to connector 2A131 J6 (7) on remote switching module (NO. 5) (8).

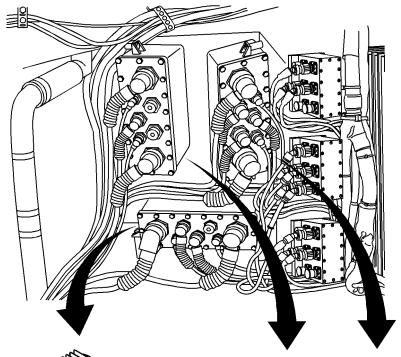
c. Join harness connector 2W100 P5 (9) to connector 2A139 J1 (10) on remote switching module (NO. 6) (11).

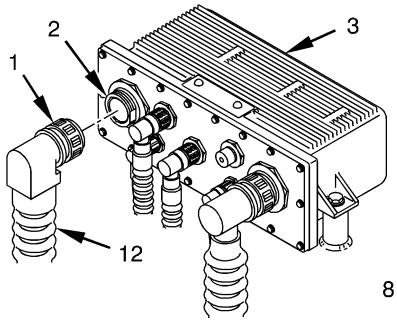
d. Join harness connector 2W100 P3 (1) to connector 2A130 J1 (2) on remote switching module (NO. 4) (3).

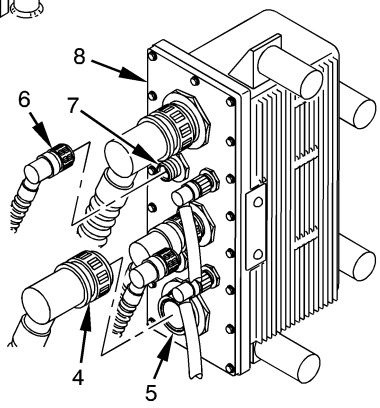
e. Join harness connector 2W100 P1 (13) to connector 2A101 J4 (14), and connector 2W100 P2 (15) to connector 2A101 J5 (16) on hull power distribution unit (17).

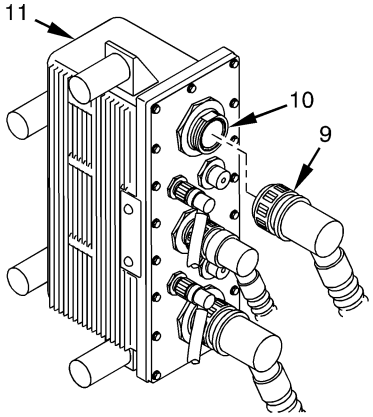
f. Position connector 2W100 J1 (18) in bulkhead (19) and install jamnut (20). Join harness connector 2W100-10 P1 (21) to receptacle connector 2W100 J1 (18).

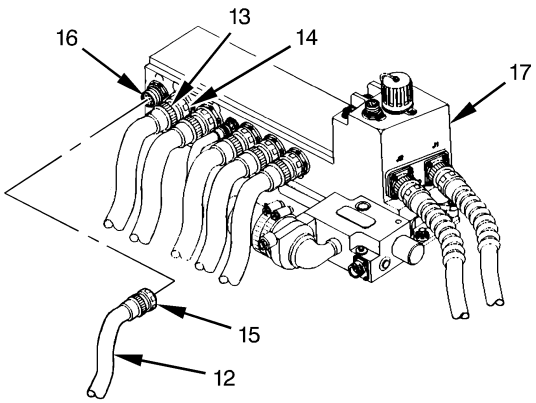












Go on to Sheet 3

3h1246

WIRING HARNESS 2W100 REPLACEMENT (Sheet 3 of 3)

2. INSTALL CREW FLOOR PLATE (NO. 11) (PAGE 19-136).
3. INSTALL CREW FLOOR PLATE (NO. 10) (PAGE 19-135).
4. INSTALL CREW FLOOR PLATE (NO. 7) (PAGE 19-132).
5. INSTALL CREW FLOOR PLATE (NO. 6) (PAGE 19-131).
6. INSTALL CREW FLOOR PLATE (NO. 5) (PAGE 19-130).
7. INSTALL CREW FLOOR PLATE (NO. 4) (PAGE 19-129).
8. INSTALL CREW FLOOR PLATE (NO. 3) (PAGE 19-128).
9. INSTALL COMMANDER'S ELECTRONICS UNIT (PAGE 9-390).
10. CONNECT VEHICLE POWER (PAGE 9-186).

End of Task

WIRING HARNESS 2W100-10 REPLACEMENT (Sheet 1 of 1)

TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)

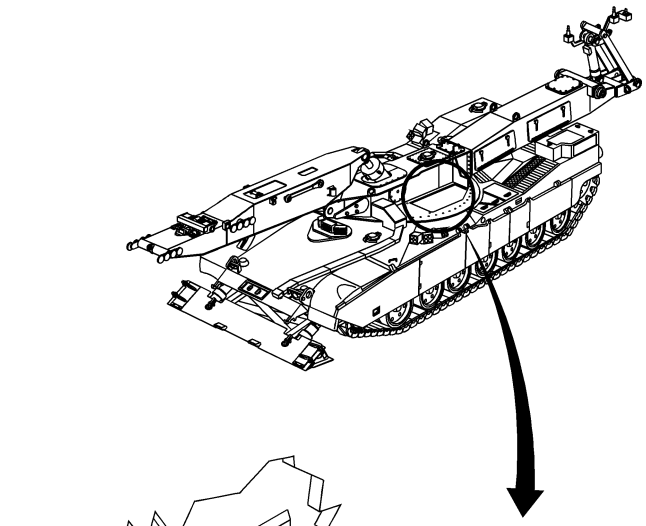
EQUIPMENT CONDITION: Launch bridge, normal launch (TM 5-5420-232-10)
Vehicle power disconnected (page 9-159)

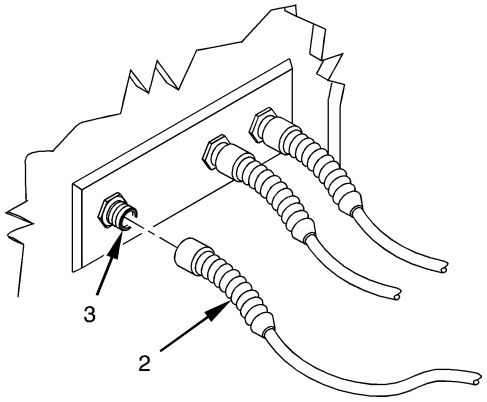
REMOVAL:

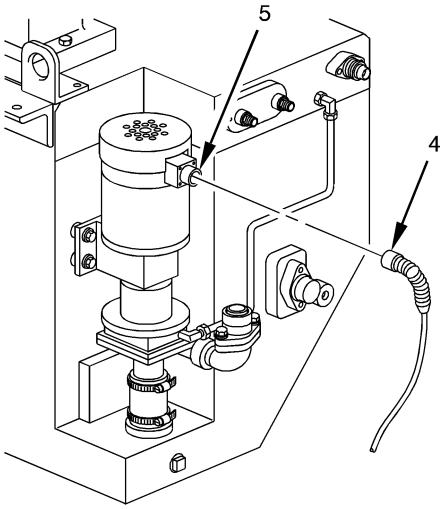
1. REMOVE WIRING HARNESS (1).
   a. Disconnect harness connector 2W100-10 P1 (2) from receptacle connector 2W100 J1 (3).
   b. Disconnect harness connector 2W100-10 P2 (4) from charge pump connector 2B102 J1 (5).
   c. Remove harness clamping hardware (page 9-379).
   d. Remove harness (1) from chassis.
2. INSPECT PARTS FOR DAMAGE. REPLACE AS REQUIRED.

INSTALLATION:

1. INSTALL HARNESS (1).
   a. Position harness (1) in chassis.
   b. Install harness clamping hardware (page 9-379).
   c. Join harness connector 2W100-10 P2 (4) to charge pump connector 2B102 J1 (5).
   d. Join harness connector 2W100-10 P1 (2) to receptacle connector 2W100 J1 (3).
2. CONNECT VEHICLE POWER (PAGE 9-186).
3. RETRIEVE BRIDGE (TM 5-5420-232-10).







End of Task

3h1248

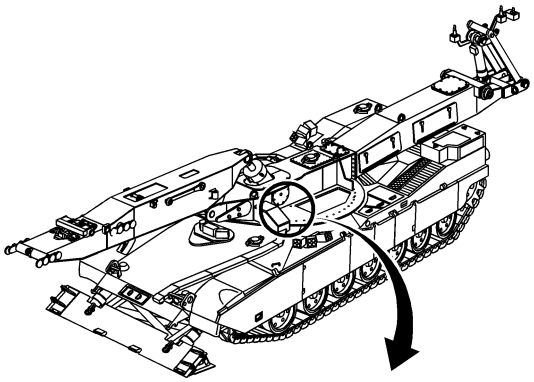
WIRING HARNESS 2W102-10 REPLACEMENT (Sheet 1 of 2)

TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)

EQUIPMENT CONDITION: Vehicle power disconnected (page 9-159)
Single channel ground/airborne radio system (sincgars) removed (TM 11-5820-890-10-8)
Commander's electronics unit removed (page 9-390)
Ration heater removed (page 9-395)
Crew floor plate (No. 4) removed (page 19-129)
Crew floor plate (No. 7) removed (page 19-132)

REMOVAL:

1. REMOVE WIRING HARNESS (1).
   a. Disconnect harness connector 2W102-10 J1 (2) from connector 2A119 P1 (3) on chemical detection heater (No. 1) (4) .
   b. Disconnect harness 2W102-10 J2 (5) from receptacle connector 2W110-10 P6 (6).
   c. Disconnect harness connector 2W102-10 J3 (7) from connector 2A118 P1 (8) on chemical detection heater (No. 2) (9).
   d. Disconnect harness connector 2W102-10 P1 (10) from connector 2A130 J5 (11) on remote switching module (12).
   e. Disconnect harness connector 2W102-10 P2 (13) from connector 2DS100 J1 (14) on commander's dome light (15).
   f. Disconnect harness connector 2W102-10 P5 (16) from connector 2A607 J1 (17) on commander's control panel (18).
   g. Remove harness (1) from chassis.
2. INSPECT PARTS FOR DAMAGE. REPLACE AS REQUIRED.



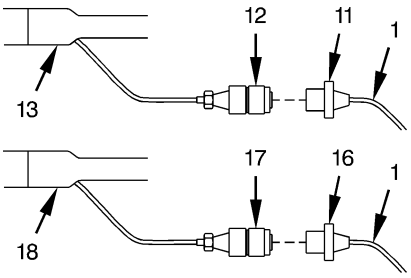
Go on to Sheet 2

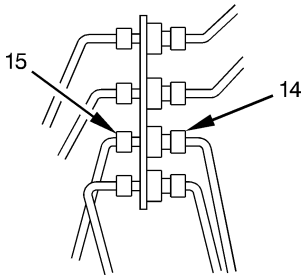
3h1249

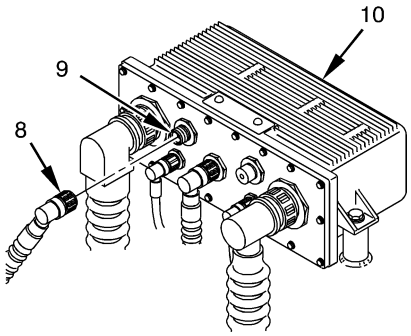
WIRING HARNESS 2W102-10 REPLACEMENT (Sheet 2 of 2)

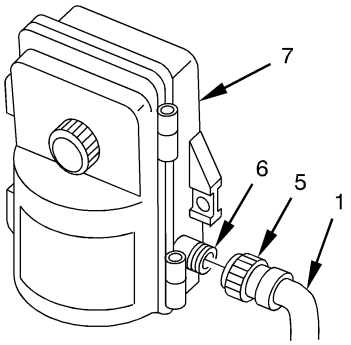
INSTALLATION:

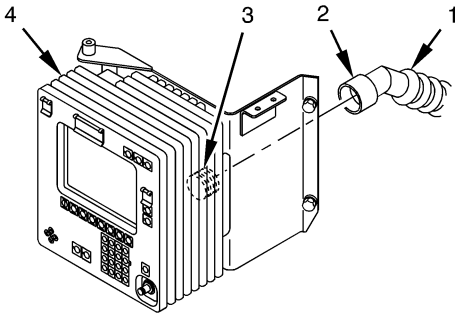
1. INSTALL HARNESS (1).
   a. Position harness (1) in chassis.
   b. Join harness connector (2) 2W102-10 P5 to connector 2A607 J1 (3) on commander's control panel (4).
   c. Join harness connector 2W102-10 P2 (5) to connector 2DS100 J1 (6) on commander's dome light (7).
   d. Join harness connector 2W102-10 P1 (8) to connector 2A130 J5 (9) on remote switching module (10).
   e. Join harness connector 2W102-10 J3 (11) to connector 2A118 P1 (12) on chemical detection heater (No. 2) (13).
   f. Join harness connector 2W102-10 J2 (14) to receptacle connector 2W110-10 P6 (15).
   g. Join harness connector 2W102-10 J1 (16) to connector 2A119 P1 (17) on chemical detection heater (No. 1) (18).
2. INSTALL CREW FLOOR PLATE (NO. 7) (PAGE 19-132).
3. INSTALL CREW FLOOR PLATE (NO. 4) (PAGE 19-129).
4. INSTALL RATION HEATER (PAGE 9-395).
5. INSTALL COMMANDER'S ELECTRONIC UNIT (PAGE 9-390).
6. INSTALL SINGLE CHANNEL GROUND/ AIRBORNE RADIO SYSTEM (SINCGARS) (TM 11-5820-890-10-8).
7. CONNECT VEHICLE POWER (PAGE 9-186).











End of Task

3h1250

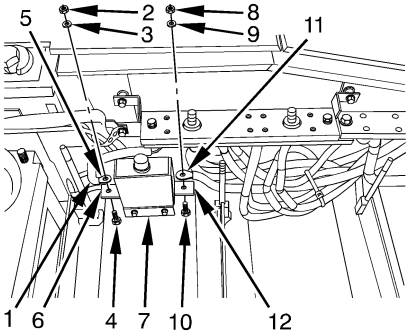
WIRING HARNESS 2W103-10 REPLACEMENT (Sheet 1 of 6)

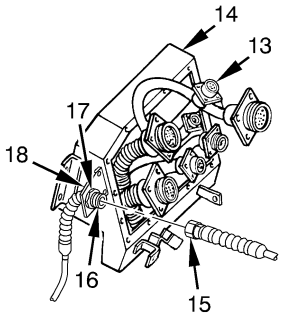
TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)

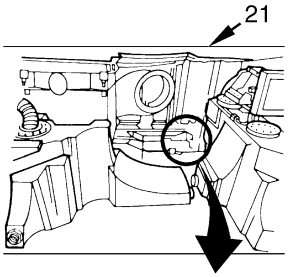
EQUIPMENT CONDITION: Powerpack removed (page 4-12)
Feed-through plate and plate removed (page 9-374)
Panel identification plate removed (page 9-114)
Launcher Power Unit guillotine plate removed (page 25-70)
Crew floor plate (No. 1) removed (page 19-126)
Crew floor plate (No. 2) removed (page 19-127)
Crew floor plate (No. 3) removed (page 19-128)
Crew floor plate (No. 4) removed (page 19-129)
Crew floor plate (No. 6) removed (page 19-131)
Crew floor plate (No. 7) removed (page 19-132)
Crew floor plate (No. 10) removed (page 19-135)
Crew floor plate (No. 11) removed (page 19-136)
Crew floor plate (No. 12) removed (page 19-137)
Hydraulic module cover access doors opened (TM 5-5420-232-10)

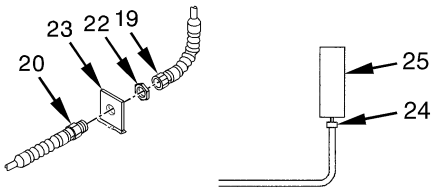
REMOVAL:

1. REMOVE WIRING HARNESS (1) FROM ENGINE COMPARTMENT.
   a. Remove nut (2), lockwasher (3), screw (4), and terminal lug 2W103-10 E1 (5) from terminal 2A142-4 (6) on circuit breaker (7).
   b. Remove nut (8), lockwasher (9), screw (10), and terminal lug 2W103-10 E2 (11) from terminal 2A142-5 (12) on circuit breaker (7).
   c. Remove harness connector 2W103-10 J2 (13) from disconnect panel junction box (14).
   d. Disconnect harness connector 2W212-10 P1 (15) from connector 2W103-10 J3 (16) on disconnect panel (14).
   e. Remove jam nut (17) and connector 2W103-10 J3 (16) from bracket (18).
   f. Disconnect harness connector 2W147-10 P1 (19) from connector 2W103-10 J6 (20) in engine compartment (21).
   g. Remove jam nut (22) and connector 2W103-10 J6 (20) from bracket (23).
   h. Disconnect harness connector 2W103-10 P8 (24) from LPU fuel shut-off connector 2A145 (25) in engine compartment (26).









Go on to Sheet 2

3h1514

WIRING HARNESS 2W107-10 REPLACEMENT (Sheet 1 of 2)

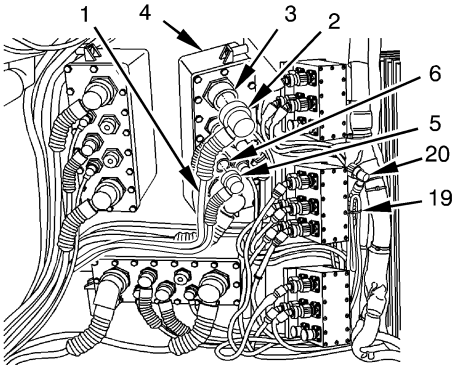
TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)

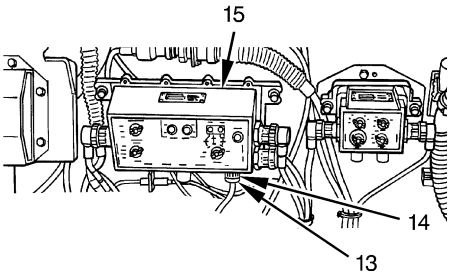
SUPPLIES: Electrical tiedown strap (Item 451, Appendix G)

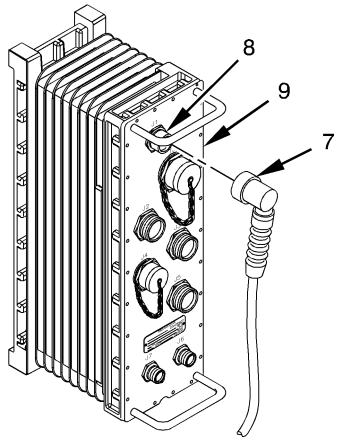
EQUIPMENT CONDITION: Vehicle power disconnected (page 9-159)

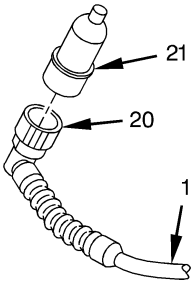
REMOVAL:

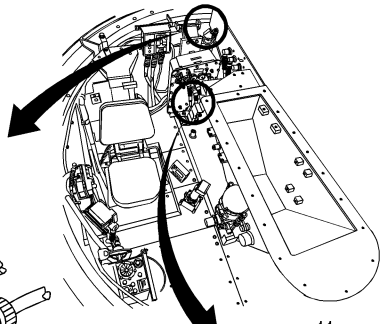
1. REMOVE WIRING HARNESS (1).
   a. Disconnect harness connector 2W107-10 P1 (2) from connector 2A131 J4 (3) on remote switching module (4).
   b. Disconnect harness connector 2W107-10 P5 (5) from connector 2A131 J5 (6) on remote switching module (4).
   c. Disconnect harness connector 2W107-10 P2 (7) from connector 2A604 J1 (8) on commander's electronic unit (9).
   d. Disconnect harness connector 2W107-10 P4 (10) from connector 2A136 J1 (11) on crew pressure low switch (12).
   e. Disconnect harness connector 2W107-10 P6 (13) from receptacle connector 2AR300 J5 (14) on control indicator (15).
   f. Disconnect harness connector 2W107-10 J1 (16) from connector 2W140-10 P4 (17) on bracket (18).
   g. Cut away electrical tiedown straps (19) as required to free connector 2W107-10 P3 (20). Remove cable shunting connector (21) from connector 2W107-10 P3 (20).
   h. Remove wiring harness (1) from vehicle.
2. INSPECT PARTS FOR DAMAGE. REPLACE AS REQUIRED.

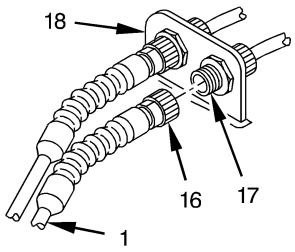


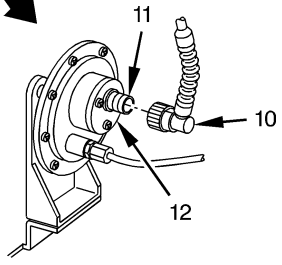












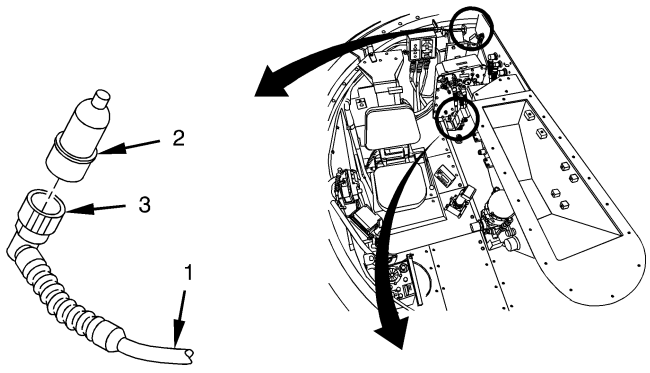
Go on to Sheet 2

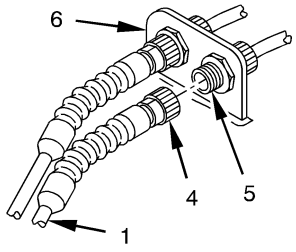
3h1364

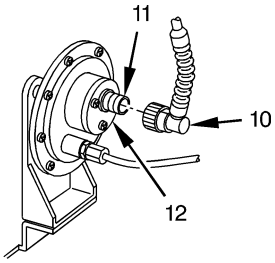
WIRING HARNESS 2W107-10 REPLACEMENT (Sheet 2 of 2)

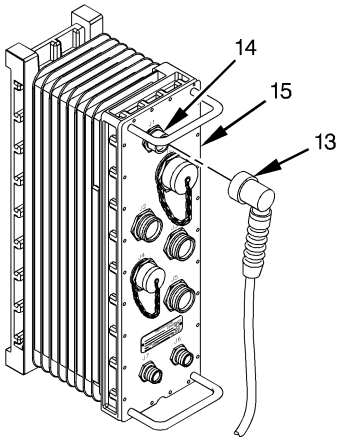
INSTALLATION:

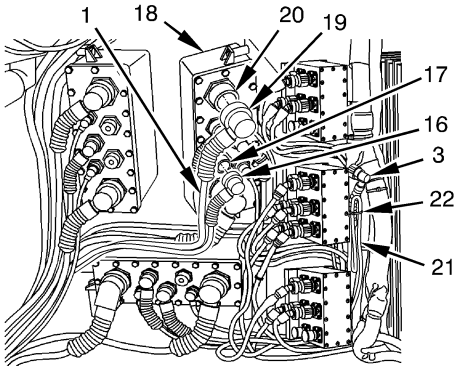
1. INSTALL HARNESS (1).
   a. Install cable shunting connector (2) on connector 2W107-10 P3 (3).
   b. Position harness (1) on vehicle.
   c. Join harness connector 2W107-10 J1 (4) to connector 2W140-10 P4 (5) on bracket (6).
   d. Join harness connector 2W107-10 P6 (7) to connector 2AR300 J5 (8) on control indicator (9).
   e. Join harness connector 2W107-10 P4 (10) to connector 2A136 J1 (11) on crew pressure low switch (12).
   f. Join harness connector 2W107-10 P2 (13) to connector 2A604 J1 (14) on commander's electronic unit (15).
   g. Join harness connector 2W107-10 P5 (16) to connector 2A131 J5 (17) on remote switching module (18).
   h. Join harness connector 2W107-10 P1 (19) to connector 2A131 J4 (20) on remote switching module (18).
   i. Attach 2W107-10 P3 (3) to harness 2W117-10 (21) using electrical tiedown strap (22).
2. CONNECT VEHICLE POWER (PAGE 9-186).

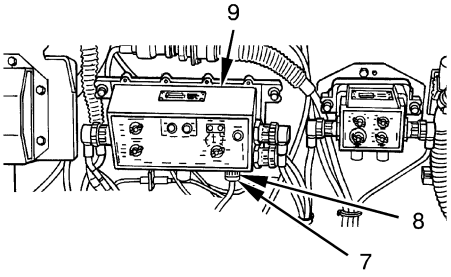










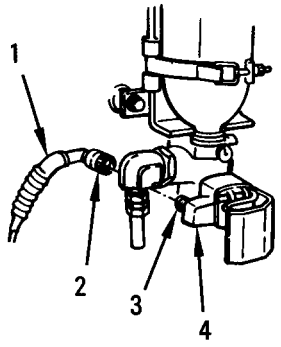


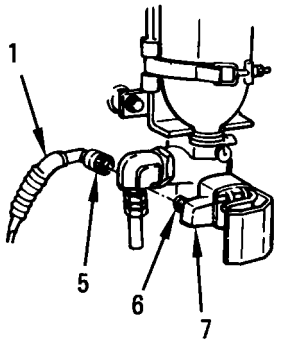
End of Task 3h1365

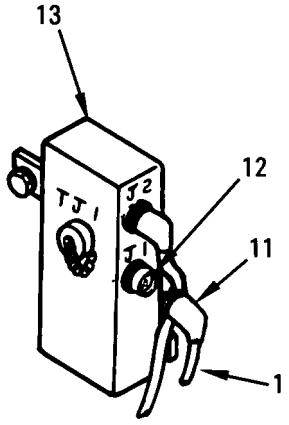
BRANCHED WIRING HARNESS 2W111-7 REPLACEMENT (Sheet 2 of 2)

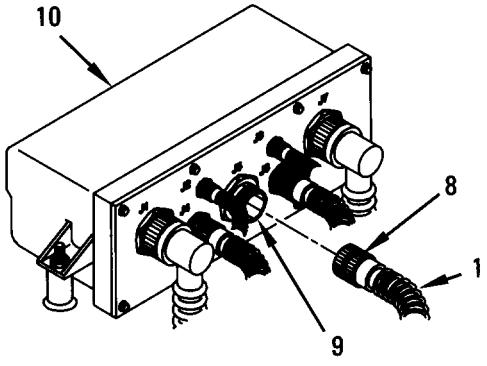
INSTALLATION:

1. INSTALL HARNESS (1).
   a. Join connector 2W111-7 P4 (2) to connector 2L403 J1 (3) on valve (4).
   b. Join connector 2W111-7 P3 (5) to connector 2L401 J1 (6) on valve (7).
   c. Install wiring harness clamping hardware (page 9-379).
   d. Join connector 2W111-7 P1 (8) to connector 2A102 J5 (9) on RSM (10).
   e. Join connector 2W111-7 P2 (11) to connector 2AR401 J1 (12) on amplifier (13).
2. INSTALL CREW FLOOR PLATE (NO. 1) (PAGE 19-126).
3. INSTALL CREW FLOOR PLATE (NO. 5) (PAGE 19-130).
4. INSTALL CREW FLOOR PLATE (NO. 8) (PAGE 19-133).
5. INSTALL CREW FLOOR PLATE (NO. 11) (PAGE 19-136).
6. CONNECT VEHICLE POWER (PAGE 9-186).









End of Task

3w4039

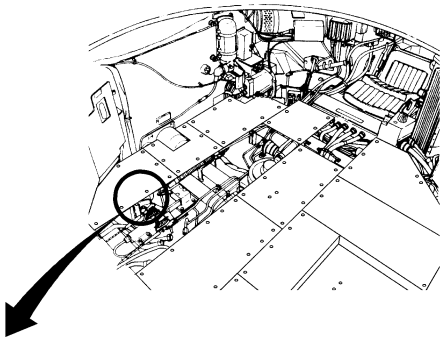
BRANCHED WIRING HARNESS 2W112-10 REPLACEMENT (Sheet 1 of 2)

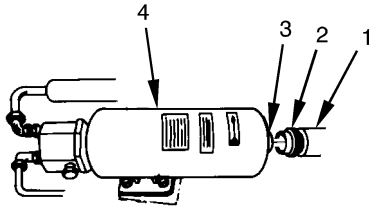
TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)

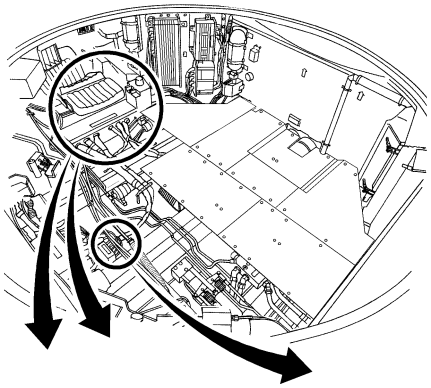
EQUIPMENT CONDITION: Vehicle power disconnected (page 9-159)
Crew floor plate (No. 5) removed (page 19-130)
Crew floor plate (No. 8) removed (page 19-133)
Crew floor plate (No. 9) removed (page 19-134)
Crew floor plate (No. 11) removed (page 19-136)
Crew floor plate (No. 12) removed (page 19-137)

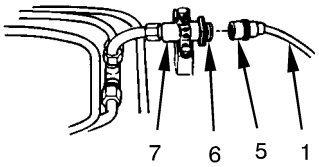
REMOVAL:

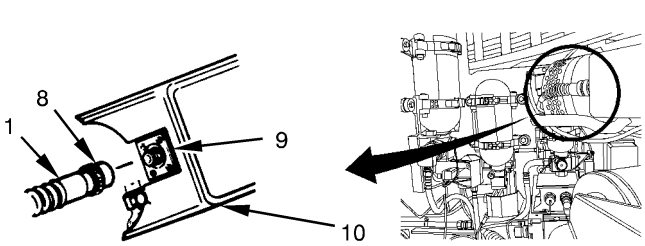
1. REMOVE HARNESS (1).
   a. Remove wiring harness clamping hardware (page 9-379).
   b. Disconnect electrical plug connector 2W112-10 P4 (2) from receptacle connector 2B101 J1 (3) 2B101 J1 on auxiliary hydraulic pump (4).
   c. Disconnect electrical plug connector 2W112-10 P5 (5) from receptacle connector 2S106 J1 (6) on parking brake pressure switch (7).
   d. Disconnect electrical plug connector 2W112-10 P2 (8) from receptacle connector 2HR101 J1 (9) on personnel heater (10).
   e. Disconnect electrical plug connector 2W112-10 P1 (11) from receptacle connector 2A101 J13 (12) on hull power distribution unit (HPDU) (13).
   f. Remove harness (1) from vehicle.
2. INSPECT PARTS FOR DAMAGE. REPLACE AS REQUIRED.

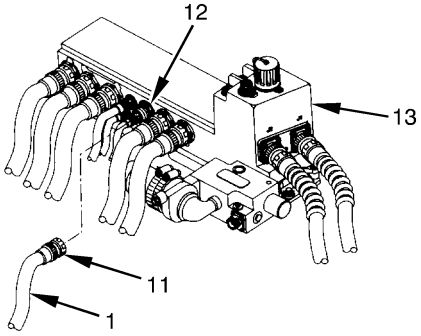












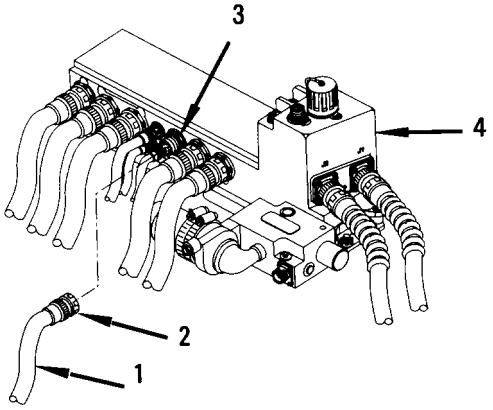
Go on to Sheet 2

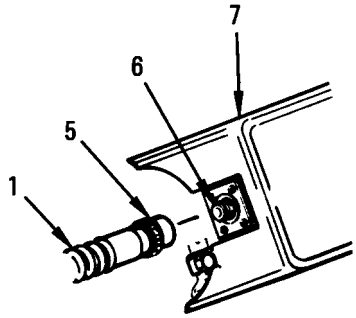
habw4040

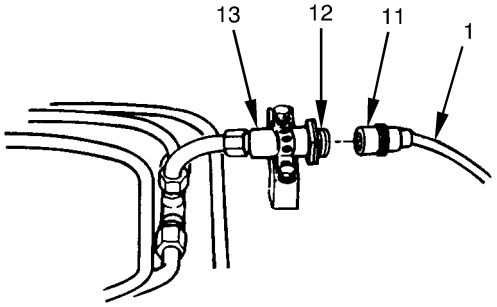
BRANCHED WIRING HARNESS 2W112-10 REPLACEMENT (Sheet 2 of 2)

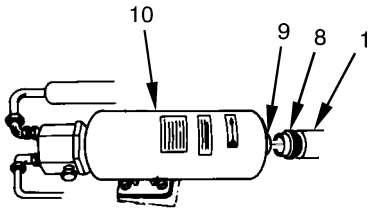
INSTALLATION:

1. INSTALL HARNESS (1).
   a. Join connector 2W112-10 P1 (2) to connector 2A101 J13 (3) on HPDU (4).
   b. Install wiring harness clamping hardware (page 9-379).
   c. Join connector 2W112-10 P2 (5) to connector 2HR101 J1 (6) on heater (7).
   d. Join connector 2W112-10 P4 (8) to connector 2B101 J1 (9) on pump (10).
   e. Join connector 2W112-10 P5 (11) to connector 2S106 J1 (12) on switch (13).
2. INSTALL CREW FLOOR PLATE (NO. 12) (PAGE 19-137).
3. INSTALL CREW FLOOR PLATE (NO. 11) (PAGE 19-136).
4. INSTALL CREW FLOOR PLATE (NO. 9) (PAGE 19-134).
5. INSTALL CREW FLOOR PLATE (NO. 8) (PAGE 19-133).
6. INSTALL CREW FLOOR PLATE (NO. 5) (PAGE 19-130).
7. CONNECT VEHICLE POWER (PAGE 9-186).









End of Task

3w4041

BRANCHED WIRING HARNESS 2W114-8 REPLACEMENT (Sheet 1 of 1)

TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)

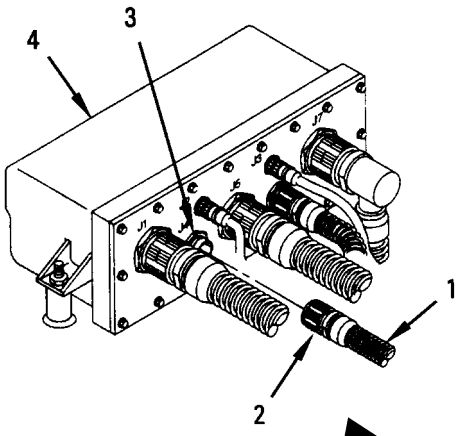
EQUIPMENT CONDITION: Vehicle power disconnected (page 9-159)
Crew floor plate (No. 2) removed (page 19-127)
Crew floor plate (No. 6) removed (page 19-131)

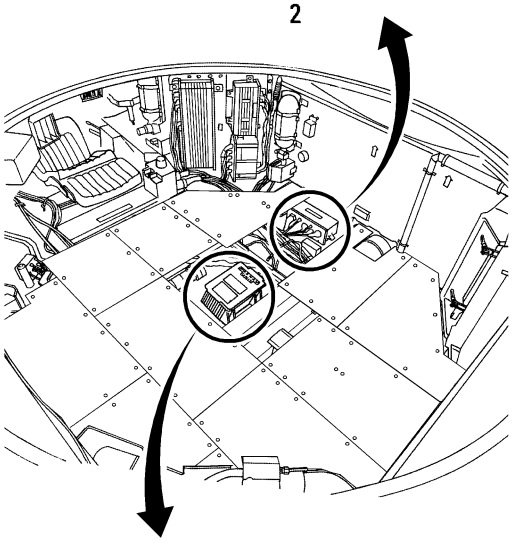
REMOVAL:

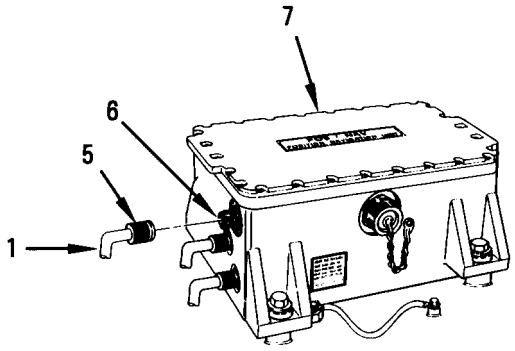
1. REMOVE HARNESS (1).
   a. Disconnect electrical plug connector 2W114-8 P1 (2) from receptacle connector 2A104 J4 (3) on RSM (4).
   b. Remove wiring harness clamping hardware (page 9-379).
   c. Disconnect electrical plug connector 2W114-8 P2 (5) from receptacle connector 2A114 J1 (6) on position navigation unit (POS/NAV) (7).
   d. Remove harness (1) from vehicle.
2. INSPECT PARTS FOR DAMAGE. REPLACE AS REQUIRED.

INSTALLATION:

1. INSTALL HARNESS (1).
   a. Join connector 2W114-8 P2 (5) to connector 2A114 J1 (6) on POS/NAV (7).
   b. Install wiring harness clamping hardware (page 9-379).
   c. Join connector 2W114-8 P1 (2) to connector 2A104 J4 (3) on RSM (4).
2. INSTALL CREW FLOOR PLATE (NO. 6) (PAGE 19-131).
3. INSTALL CREW FLOOR PLATE (NO. 2) (PAGE 19-127).
4. CONNECT VEHICLE POWER (PAGE 9-186).







End of Task 3w4050

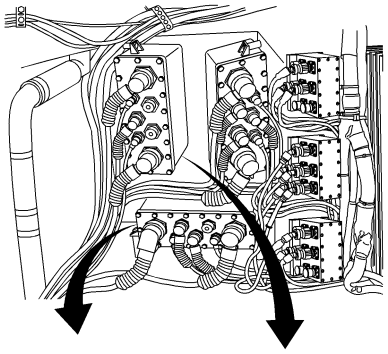
WIRING HARNESS 2W117-10 REPLACEMENT (Sheet 1 of 3)

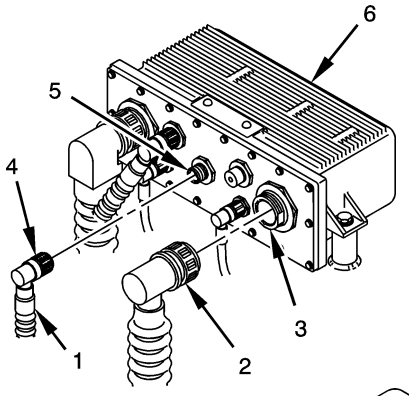
TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)

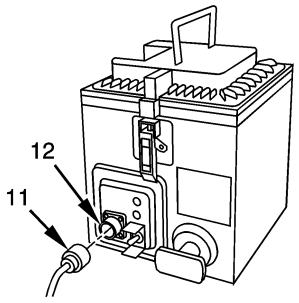
EQUIPMENT CONDITION: Vehicle power disconnected (page 9-159)
Commander's electronic unit removed (page 9-390)
Crew floor plate (No. 4) removed (page 19-129)

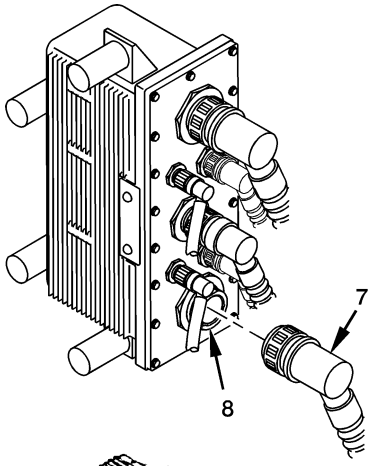
REMOVAL:

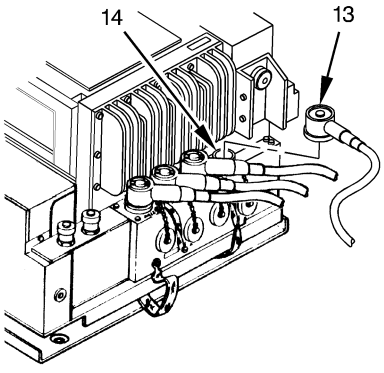
1. REMOVE WIRING HARNESS (1).
   a. Disconnect harness connector 2W117-10 P1 (2) from connector 2A130 J4 (3), and harness connector 2W117-10 P8 (4) from connector 2A130 UJ1 (5) on remote switching unit 2A130 (no. 4) (6).
   b. Disconnect harness connector 2W117-10 P2 (7) from remote switching unit connector 2A139 J4 (8).
   c. Disconnect harness connector 2W117-10 P3 (9) from selectable power adapter connector 2A350 J1 (10).
   d. Disconnect harness connector 2W117-10 P4 (11) from water/rations heater connector 2A700 J1 (12).
   e. Disconnect harness connector 2W117-10 P6 (13) from mounting base receptacle 2A305 A4J1 (14).

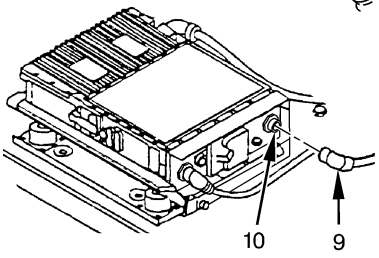












Go on to Sheet 2

3h1281

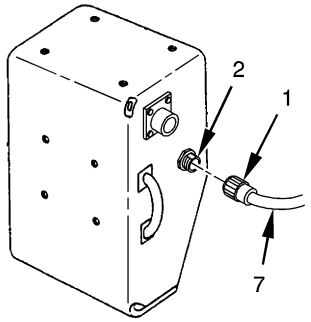
WIRING HARNESS 2W117-10 REPLACEMENT (Sheet 2 of 3)

f. Disconnect harness connector 2W117-10 P5 (1) from chemical detector connector 2A137 J1 (2).

g. Disconnect harness connector 2W117-10 P7 (3) from improved launcher electronics control unit connector 2A605 J1 (4).

h. Disconnect harness connector 2W117-10 J1 (5) from receptacle connector 2W110-10 P3 (6).

i. Remove harness (7) from chassis.



2. INSPECT PARTS FOR DAMAGE. REPLACE AS REQUIRED.

INSTALLATION:

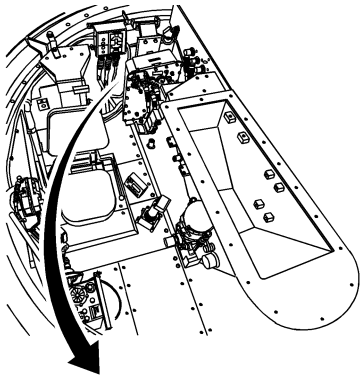
1. INSTALL HARNESS (7).

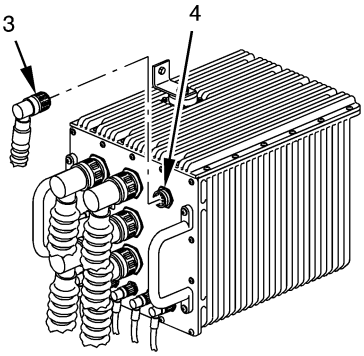
a. Position wiring harness (7) in chassis.

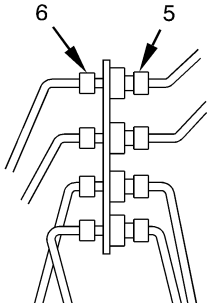
b. Join harness connector 2W117-10 J1 (5) to receptacle connector 2W110-10 P3 (6).

c. Join harness connector 2W117-10 P7 (3) to improved launcher electronics control unit connector 2A605 J1 (4).

d. Join harness connector 2W117-10 P5 (1) to chemical detector connector 2A137 J1 (2).







Go on to Sheet 3

3h1282

WIRING HARNESS 2W117-10 REPLACEMENT (Sheet 3 of 3)

e. Join harness connector 2W117-10 P4 (1) to water/rations heater connector 2A700 J1 (2).

f. Join harness connector 2W117-10 P6 (3) to mounting base receptacle 2A305 A4J1 (4).

g. Join harness connector 2W117-10 P3 (5) to selectable power adapter connector 2A350 J1 (6).

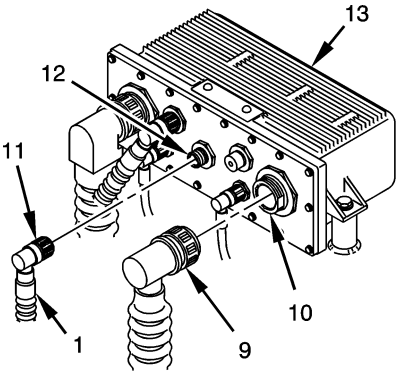
h. Join harness connector 2W117-10 P2 (7) to remote switching module connector 2A139 J4 (8).

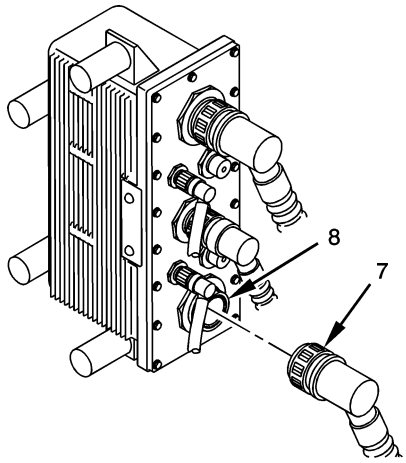
i. Join harness connector 2W117-10 P1 (9) to connector 2A130 J4 (10), and harness connector 2W117-10 P8 (11) to connector 2A130 UJ1 (12) on remote switching unit 2A130 (13).

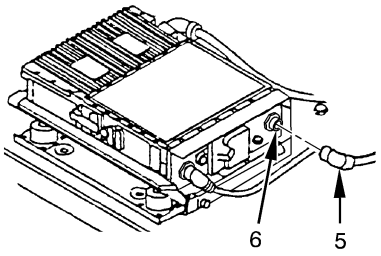
2. INSTALL CREW FLOOR PLATE (NO. 4) (PAGE 19-129).

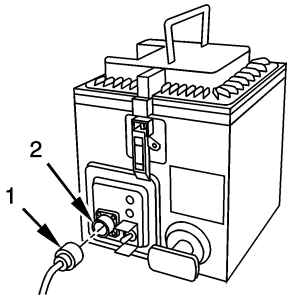
3. INSTALL COMMANDER'S ELECTRONIC UNIT (PAGE 9-390).

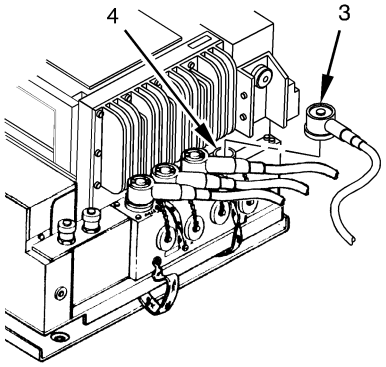
4. CONNECT VEHICLE POWER (PAGE 9-186).











End of Task

3h1283

BRANCHED WIRING HARNESS 2W118-9 REPLACEMENT (Sheet 1 of 3)

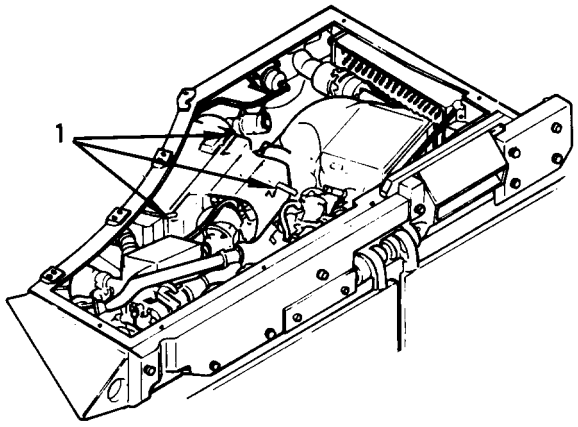
TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)

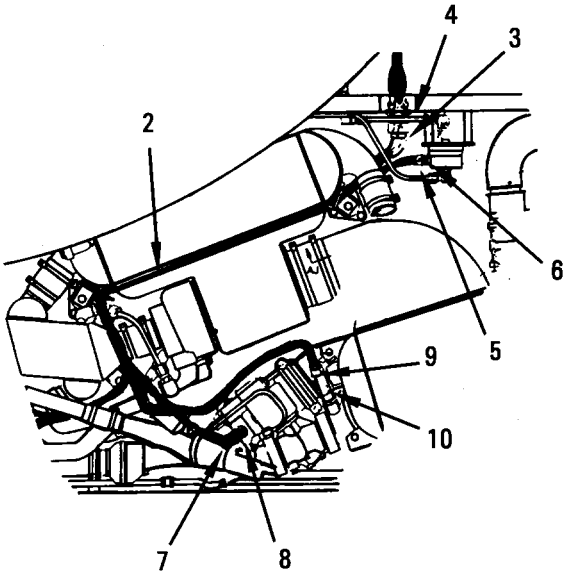
SUPPLIES: Electrical tiedown strap (Item 452, Appendix G) (3 required)

EQUIPMENT CONDITION: Vehicle power disconnected (page 9-159)
Bleed air inlet metallic bent tube removed (page 28-68)

REMOVAL:

1. CUT OFF THREE ELECTRICAL TIEDOWN STRAPS (1).
2. REMOVE HARNESS (2) FROM MIDDLE SPONSON AREA.
   a. Disconnect electrical plug connector 2W118-9 P1 (3) from receptacle connector 2W103-7 J1 (4).
   b. Disconnect electrical plug connector 2W118-9 P9 (5) from pressure switch connector J1 (6).
   c. Disconnect electrical plug connector 2W118-9 P2 (7) from pressure regulating valve connector J1 (8).
   d. Disconnect electrical plug connector 2W118-9 P4 (9) from overheat sponson IN switch connector J1 (10).





Go on to Sheet 2

3w4376

WIRING HARNESS 2W140-10 REPLACEMENT (Sheet 1 of 4)

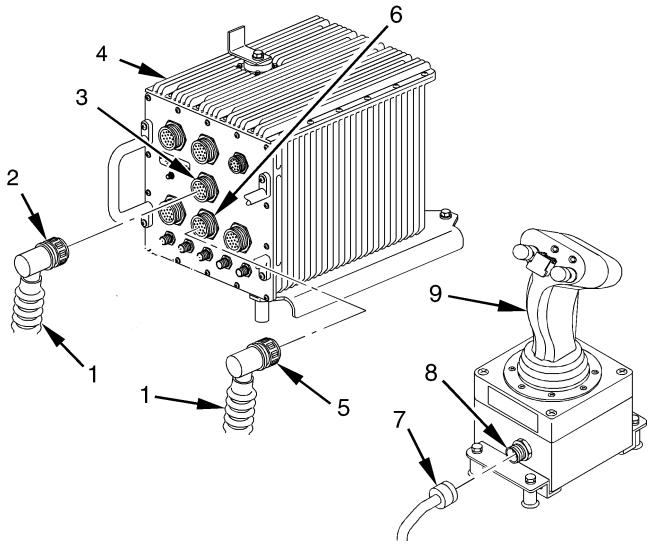
TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)

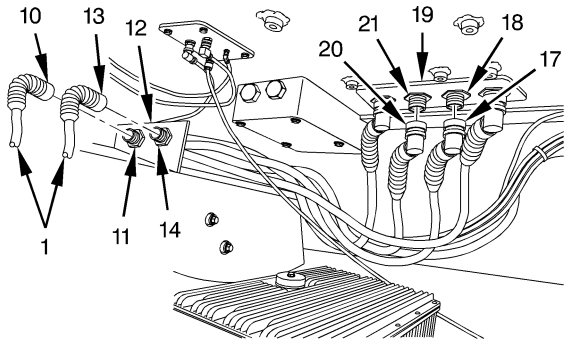
SUPPLIES: Electrical tiedown strap (Item 453, Appendix G) (as required)
Electrical tiedown strap (Item 451, Appendix G) (as required)

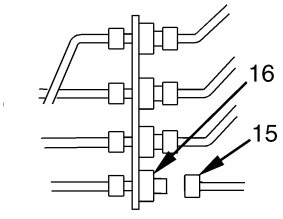
EQUIPMENT CONDITION: Vehicle power disconnected (page 9-159)
Launch control handle (LCH) (Commander's) removed (page 9-389)
Radiac bracket removed (page 9-396)
Oddment box removed (page 19-118)
Commander's electronics unit removed (page 9-390)
Emergency launch control panel/ battery/ and ration heater stowage rack removed (page 19-117)
Crew floor plate (No. 1) removed (page 19-126)
Crew floor plate (No. 2) removed (page 19-127)
Crew floor plate (No. 3) removed (page 19-128)
Crew floor plate (No. 4) removed (page 19-129)
Crew floor plate (No. 5) removed (page 19-130)
Crew floor plate (No. 8) removed (page 19-133)

REMOVAL:

1. REMOVE WIRING HARNESS (1).
   a. Remove harness clamping hardware (page 9-379).
   b. Disconnect harness connector 2W140-10 P1 (2) from connector 2A605 J3 (3) on improved launcher electronics control unit (4).
   c. Disconnect harness connector 2W140-10 P5 (5) from connector 2A605 J6 (6) on improved launcher electronics control unit (4).
   d. Disconnect harness connector 2W140-10 P3 (7) from connector 2A206 J1 (8) on driver's launch handle (9).
   e. Disconnect harness connector 2W140-10 P4 (10) from receptacle connector 2W107-10 J1 (11) on panel (12).
   f. Disconnect harness connector 2W140-10 P10 (13) from receptacle connector 2W142-10 J1 (14) on panel (12).
   g. Disconnect harness connector 2W140-10 P7 (15) from receptacle connector 2W103-10 J5 (16).
   h. Disconnect harness connector 2W140-10 P6 (17) from connector 5W148 J1 (18) on quick disconnect panel (19).
   i. Disconnect harness connector 2W140-10 P2 (20) from connector 5W144 J1 (21) on quick disconnect panel (19).







Go on to Sheet 2

3h1258

WIRING HARNESS 2W140-10 REPLACEMENT (Sheet 2 of 4)

j. Disconnect harness connector 2W140-10 P9 (1) from connector 2A131 UJ1 (2) on remote switching module (3).

k. Disconnect harness connector 2W140-10 P14 (4) from connector 2A139 UJ1 (5) remote switching module (6).

l. Disconnect harness connector 2W140-10 P11 (7) from connector 2A607 J2 (8) on commander's control panel (9).

m. Disconnect harness connector 2W140-10 P13 (10) from connector 2W140-10 J1 (11).

n. Remove harness (12) from chassis.

2. INSPECT PARTS FOR DAMAGE. REPLACE AS REQUIRED.

INSTALLATION:

1. INSTALL HARNESS (12).

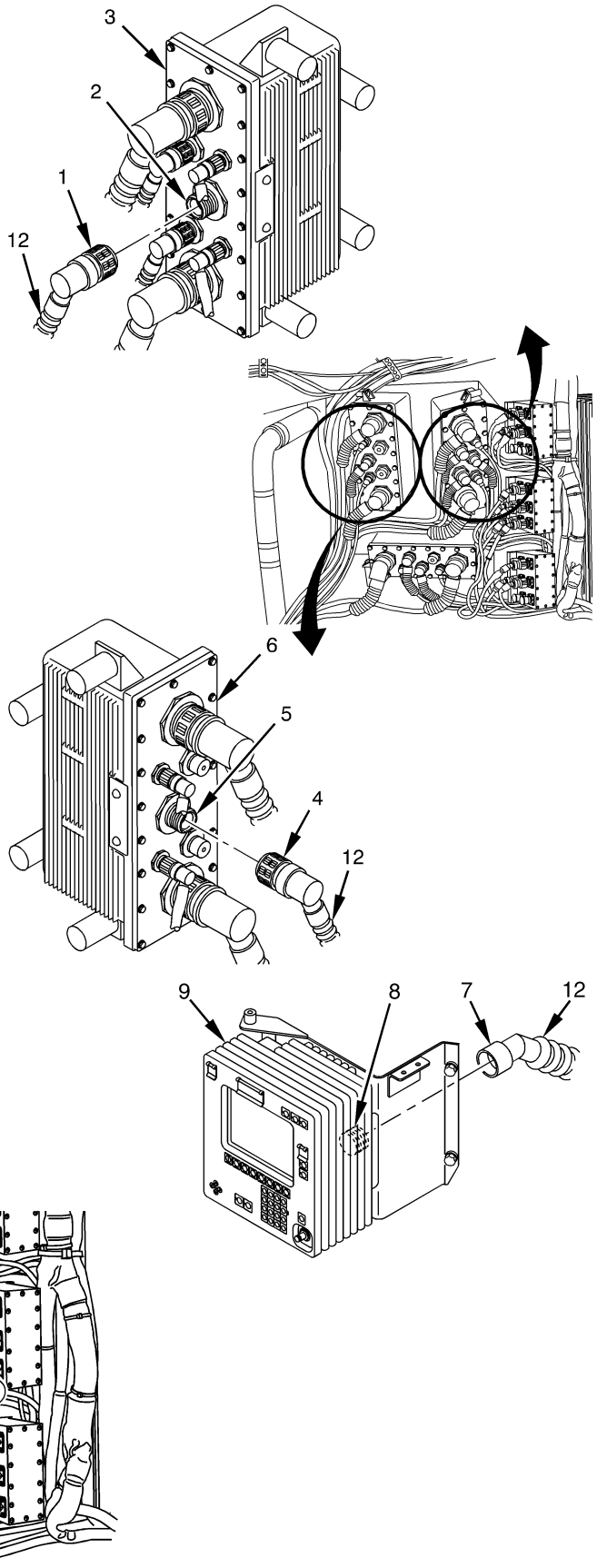
a. Position harness (12) in chassis.

b. Join harness connector 2W140-10 P13 (10) to receptacle connector 2W140-10 (11).

c. Join harness connector 2W140-10 P11 (7) to connector 2A607 J2 (8) on commander's control panel (9).

d. Join harness connector 2W140-10 P14 (4) to connector 2A139 UJ1 (5) on remote switching module (6).

e. Join harness connector 2W140-10 P9 (1) to connector 2A131 UJ1 (2) on remote switching module (3).



Go on to Sheet 3

3h1259

ELECTRICAL LEAD 2W152-7 REPLACEMENT (Sheet 2 of 2)

INSTALLATION:

WARNING

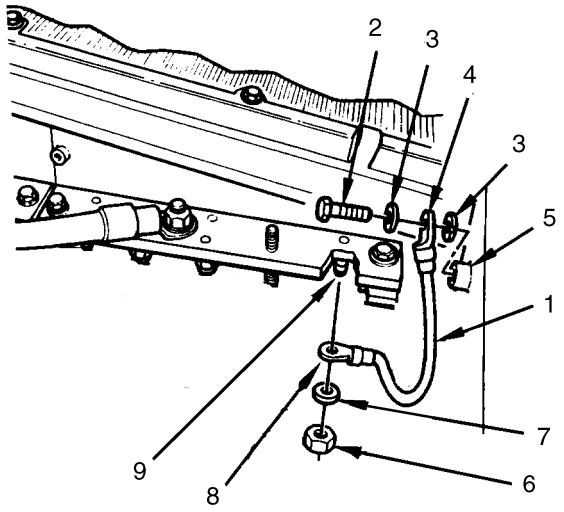
1. INSTALL LEAD (1).
   a. Install screw (2), two new lockwashers (3), and lug terminal (4) on standoff (5).
   b. Install new nut (6), washer (7), and lug terminal (8) on terminal (9).

NOTE

If adhesive was removed from screw (2) and terminal (9), do step c.

   c. Coat screw (2), lockwashers (3), washer (7), lug terminals (4, 8), nut (6), standoff (5), terminal (9), and entire lead (1) with adhesive.

2. INSTALL FORWARD BATTERY AND BATTERY RETAINER (PAGE 9-183).
3. CONNECT VEHICLE POWER (PAGE 9-186).



End of Task

sepw4371

WIRING HARNESS 2W154/5-7 REPLACEMENT (Sheet 1 of 2)

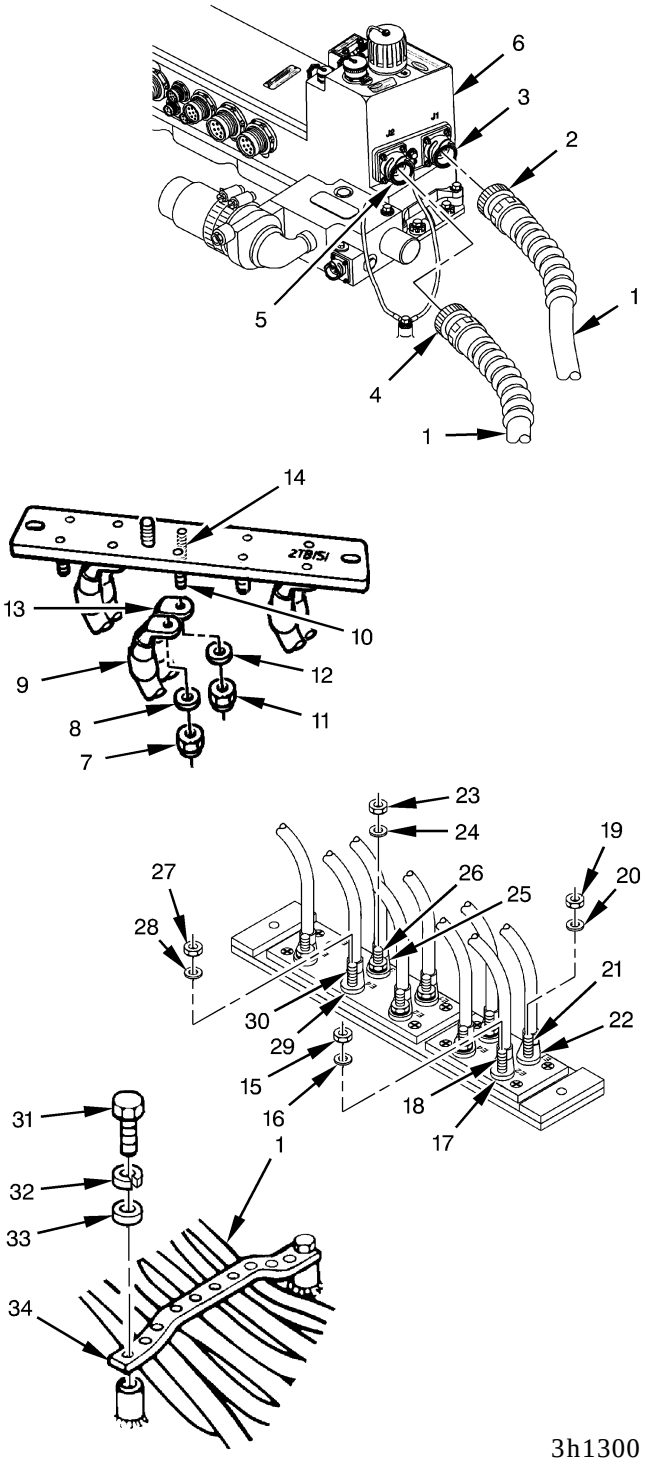
TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)

SUPPLIES: Lockwasher (Item 117, Appendix G) (2 required)
Self-locking nut (Item 172, Appendix G) (6 required)

EQUIPMENT CONDITION: Launch bridge, normal launch (TM 5-5420-232-10)
Vehicle power disconnected (page 9-159)
Storage batteries, battery retainer, and plain studs removed (page 9-179)
Crew floor plate (No. 1) removed (page 19-126)
Crew floor plate (No. 5) removed (page 19-130)
Crew floor plate (No. 8) removed (page 19-133)

REMOVAL:

1. REMOVE WIRING HARNESS (1).
   a. Disconnect harness connector 2W154/5-7 P1 (2) from connector 2A101 J1 (3), and harness connector 2W154/5-7 P2 (4) from connector 2A101 J2 (5) on hull power distribution unit (6).
   b. Remove self-locking nut (7), washer (8), and terminal lug 2W154/5-7 E1 (9) from terminal 2TB151 E7 (10).
   c. Remove self-locking nut (11), washer (12), and terminal lug 2W154/5-7 E4 (13) from terminal 2TB151 E8 (14).
   d. Remove self-locking nut (15), washer (16), and terminal lug 2W154/5-7 E2 (17) from terminal 2TB152-1 E4 (18).
   e. Remove self-locking nut (19), washer (20), and terminal lug 2W154/5-7 E3 (21) from terminal 2TB152-2 E3 (22).
   f. Remove self-locking nut (23), washer (24), and terminal lug 2W154/5-7 E5 (25) from terminal 2TB152-1 E3 (26).
   g. Remove self-locking nut (27), washer (28), and terminal lug 2W154/5-7 E6 (29) from terminal 2TB152-2 E4 (30).
   h. Remove two screws (31), lockwashers (32), and washers (33) from straps (34).
   i. Remove harness (1) from chassis.
2. INSPECT PARTS FOR DAMAGE. REPLACE AS REQUIRED.



Go on to Sheet 2

3h1300

WIRING HARNESS 2W198-4 REPLACEMENT (Sheet 1 of 1)

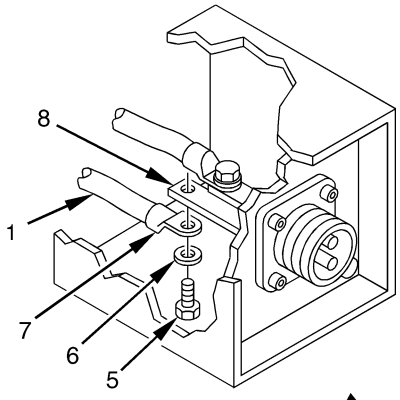
TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)

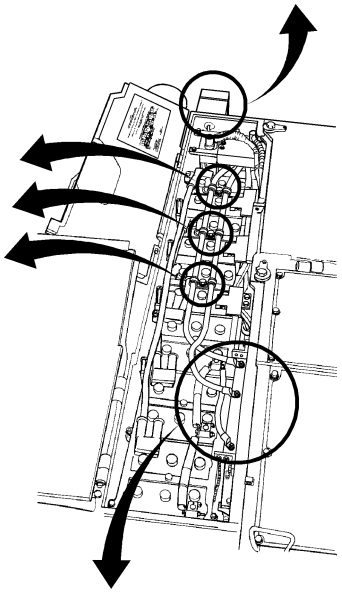
SUPPLIES: Self-locking nut (Item 176, Appendix G)

EQUIPMENT CONDITION: Launch bridge, normal launch (TM 5-5420-232-10)
Vehicle power disconnected (page 9-159)

REMOVAL:

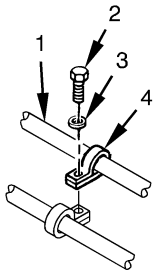
1. REMOVE WIRING HARNESS (1).
   a. Remove four screws (2), washers (3), and loop clamps (4) from harness (1).
   b. Remove screw (5), washer (6), and terminal lug 2W198-4 E2 (7) from positive NATO slave connector terminal (8).
   c. Remove nut (9), washer (10), and terminal lug 2W198-4 E1 (11) from positive bus bar terminal 2TB152-2 2W2 (12).
   d. Remove harness (1) from chassis.
2. INSPECT PARTS FOR DAMAGE. REPLACE AS REQUIRED.

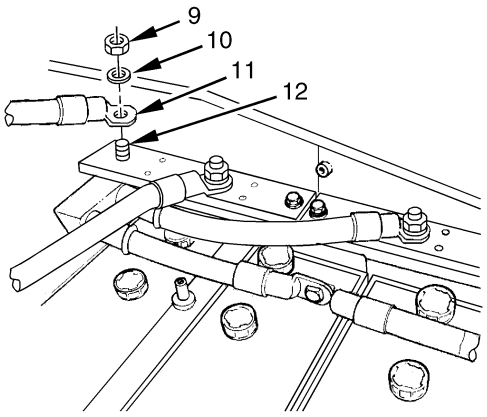




INSTALLATION:

1. INSTALL HARNESS (1).
   a. Position harness (1) in chassis.
   b. Install nut (9), washer (10), and terminal lug 2W198-4 E1 (11) on positive bus bar terminal 2TB152-2 2W2 (12).
   c. Install screw (5), washer (6), and terminal lug 2W198-4 E2 (7) on positive NATO slave connector terminal (8).
   d. Install four screws (2), washers (3), and loop clamps (4) to harness (1).
2. CONNECT VEHICLE POWER (PAGE 9-186).
3. RETRIEVE BRIDGE (TM 5-5420-232-10).





End of Task

3h1327

WIRING HARNESS 2W198-5 REPLACEMENT (Sheet 1 of 1)

TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)

SUPPLIES: Self-locking nut (Item 176, Appendix G)

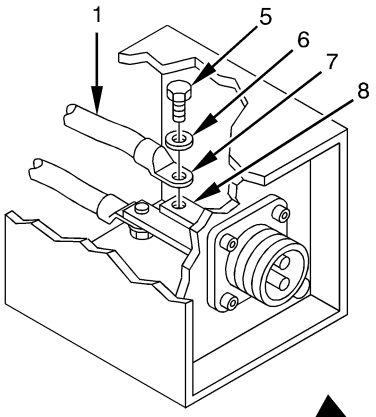
EQUIPMENT CONDITION: Launch bridge, normal launch (TM 5-5420-232-10)
Vehicle power disconnected (page 9-159)

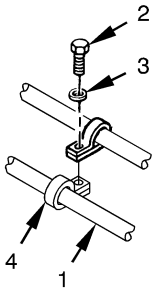
REMOVAL:

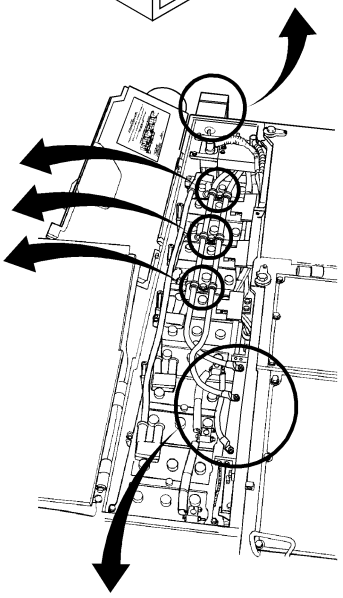
1. REMOVE WIRING HARNESS (1).
   a. Remove four screws (2), washers (3), and loop clamps (4) from harness (1).
   b. Remove screw (5), washer (6), and terminal lug 2W198-5 E2 (7) from negative NATO slave connector (8).
   c. Remove nut (9), washer (10), and terminal lug 2W198-5 E1 (11) from negative bus bar terminal 2TB151 261 (12).
   d. Remove harness (1) from chassis.
2. INSPECT PARTS FOR DAMAGE. REPLACE AS REQUIRED.

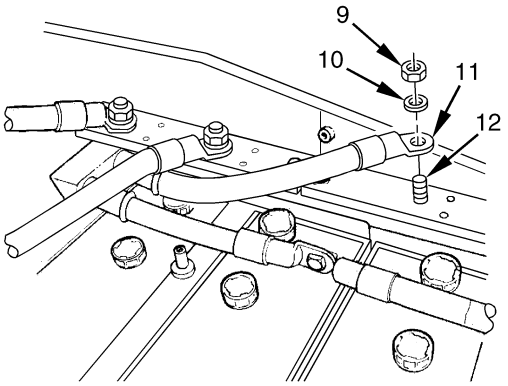
INSTALLATION:

1. INSTALL HARNESS (1).
   a. Position harness (1) in chassis.
   b. Install nut (9), washer (10), and terminal lug 2W198-5 E1 (11) on negative bus bar terminal 2TB151 261 (12).
   c. Install screw (5), washer (6), and terminal lug 2W198-5 E2 (7) on negative NATO slave terminal (8).
   d. Install four screws (2), washers (3), and loop clamps (4) to harness (1).
2. CONNECT VEHICLE POWER (PAGE 9-186).
3. RETRIEVE BRIDGE (TM 5-5420-232-10).









End of Task 3h1328

CABLE 2W210-8 OR 2W211-8 REPLACEMENT (Sheet 1 of 2)

TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)

SUPPLIES: Self-locking nut (Item 173, Appendix G) (as required)

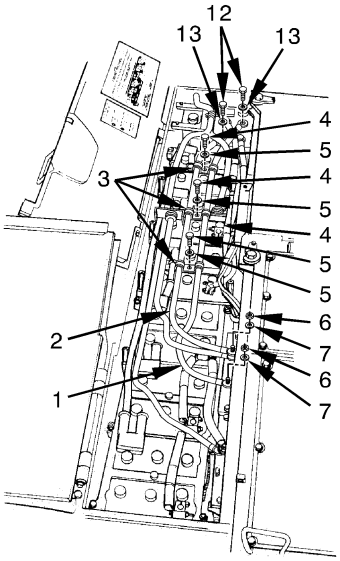
EQUIPMENT CONDITION: Vehicle power disconnected (page 9-159)
Prime power controller upper cover removed (page 9-29)
Positive terminal board guard removed (page 9-156)

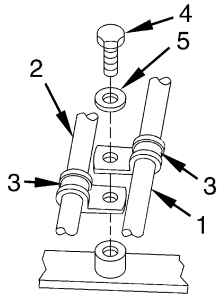
REMOVAL:

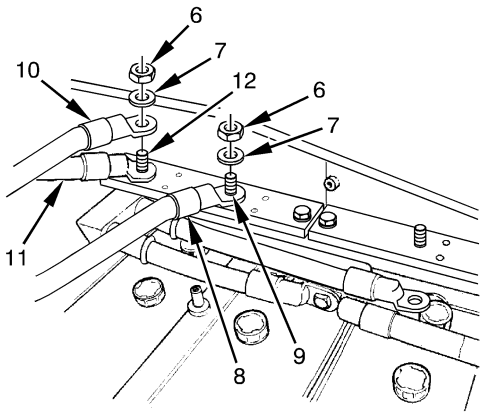
NOTE

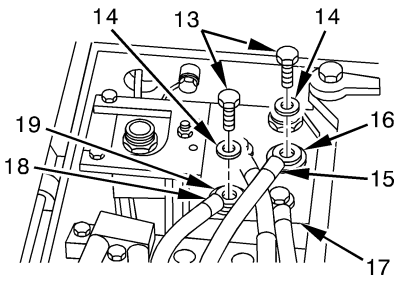
Use this procedure to replace cable 2W210-8 (1) or cable 2W211-8 (2) or to remove both for access.

1. REMOVE LOOP CLAMPS (3).
   a. Remove three screws (4) and washers (5) from three pairs of loop clamps (3).
   b. Remove self locking nut (6), flat washer (7), and terminal lug 2W210-8 E2 (8) from terminal board 2TB152-1 2W1 (9).
   c. Remove self locking nut (6), flat washer (7), terminal lug 2W170-E1 (10) and terminal lug 2W211-8 E2 (11) from terminal board 2TB152-2 2W2 (12).
   d. Remove screw (13), washer (14), and terminal lug 2W210-8 E1 (15) from terminal 2A150 E3 (16) on prime power controller (17).
   e. Remove screw (13), washer (14), and terminal lug 2W211-8 E1 (18) from terminal 2A150 E2 (19) on prime power controller (17).
   f. Remove cable 2W210-8 (1) and cable 2W211-8 (2) from battery compartment. If removing parts for access removal ends here.
2. REMOVE CLAMPS (3) FROM CABLE 2W211-8 (2) AND CABLE 2W210-8 (1).
3. INSPECT PARTS FOR DAMAGE. REPLACE AS REQUIRED.









Go on to Sheet 2

3h6125

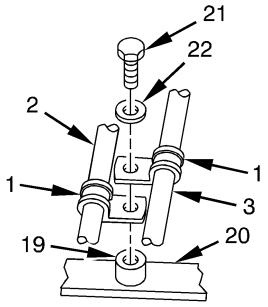
CABLE 2W210-8 OR 2W211-8 REPLACEMENT (Sheet 2 of 2)

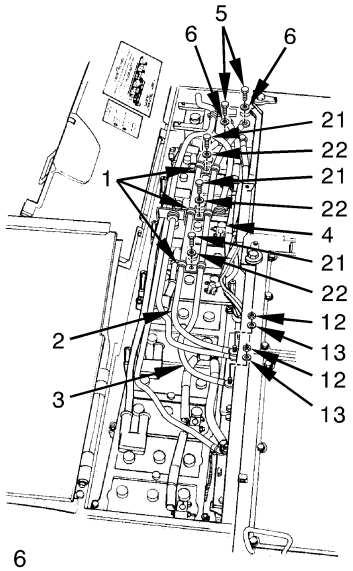
INSTALLATION:

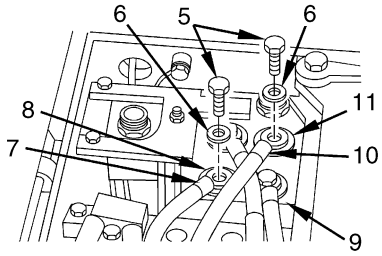
NOTE

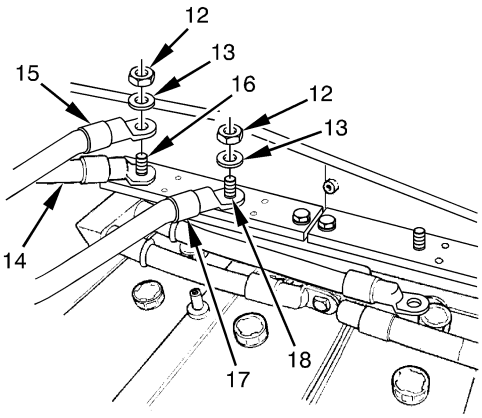
If installing parts removed for access go to step 2.

1. INSTALL THREE CLAMPS (1) ONTO CABLE 2W211-8 (2) AND CABLE 2W210-8 (3).
2. POSITION CABLE 2W210-8 (3) AND CABLE 2W211-8 (2) OVER BATTERIES (4).
3. INSTALL CABLE 2W210-8 (3) AND CABLE 2W211-8 (2).
   a. Install screw (5), washer (6), and terminal lug 2W211-8 E1 (7) to terminal 2A150 E2 (8) on controller (9).
   b. Install screw (5), washer (6), and terminal lug 2W210-8 E1 (10) to terminal 2A150 E3 (11) on controller (9).
   c. Install self locking nut (12), flat washer (13), terminal lug 2W210-8 E2 (14) and terminal lug 2W170-E1 (15) to terminal board 2TB152-1 2W1 (16).
   d. Install self locking nut (12), flat washer (13), and terminal lug 2W210-8 E2 (14) to terminal board 2TB152-1 2W1 (16).
   e. Align three pairs of loop clamps (1) with bosses (17) on battery retainer (18). Install three screws (19) and washers (20) in three pairs of loop clamps (1).
4. INSTALL POSITIVE TERMINAL BOARD GUARD (PAGE 9-158).
5. INSTALL PRIME POWER CONTROLLER UPPER COVER (PAGE 9-29).
6. CONNECT VEHICLE POWER (PAGE 9-186).







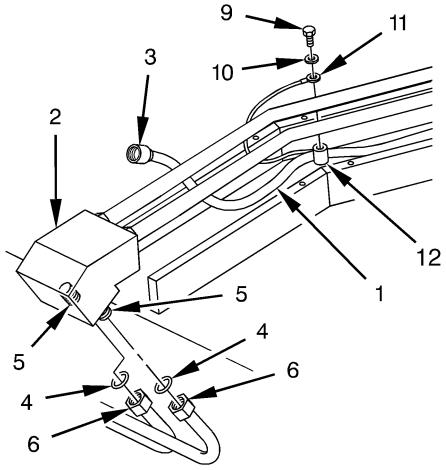


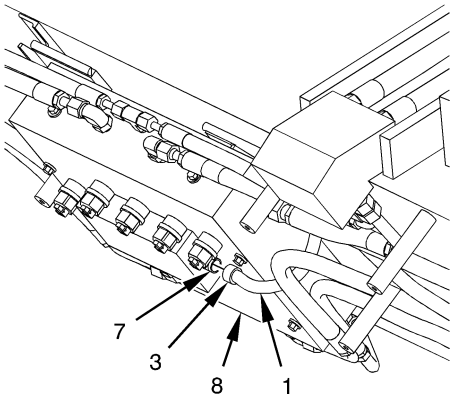
End of Task 3h6126

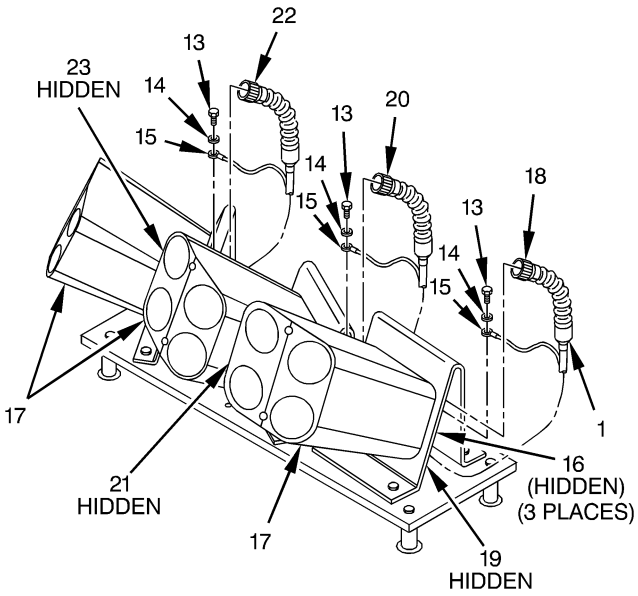
WIRING HARNESS ASSEMBLY 2W215 REPLACEMENT (Sheet 2 of 2)

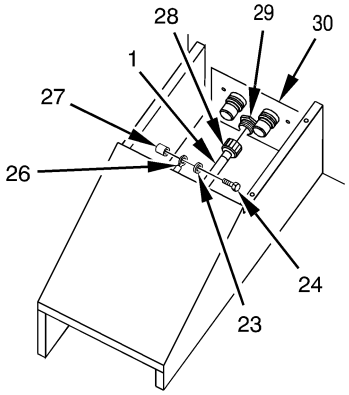
INSTALLATION:

1. INSTALL HARNESS (1).
   a. Position harness (1) in chassis.
   b. Lift tube assembly (2) from front slope and position connector 2W215 P5 (3) underneath.
   c. Install one new O-ring (4) on each adapter (5). Connect two hoses (6) to two adapters (5).
   d. Connect harness connector 2W215 P5 (3) to connector 2L103 J1 (7) on spade manifold (8).
   e. Install two screws (9), washers (10), and harness terminal lugs (11) on two standoffs (12) along length of harness (1).
   f. Install three screws (13), washers (14), and terminal lugs (15) to three standoffs (16) on three ROS launchers (17).
   g. Connect harness connector 2W215 P2 (18) to connector 2A125 J1 (19), harness connector 2W215 P3 (20) to connector 2A126 J1 (21), and harness connector 2W215 P4 (22) to connector 2A127 J1 (23) on three ROS launchers (17).
   h. Install screw (24), washer (25), and terminal lug (26) to standoff (27).
   i. Connect harness connector 2W215 P1 (28) to connector 5W148 J2 (29) on launcher quick disconnect panel (30).
2. INSTALL SPADE CONTROL MANIFOLD GUARD (PAGE 20-29).
3. INSTALL LEFT AND RIGHT BRUSH GUARDS (PAGE 20-30) (PAGE 20-31).
4. INSTALL SPADE HYDRAULIC SYSTEM TOP ACCESS COVER (PAGE 20-16).
5. INSTALL SPADE HYDRAULIC SYSTEM LINES ACCESS COVERS (PAGE 20-14).
6. INSTALL SPADE HYDRAULIC SYSTEM FRONT ACCESS COVER (PAGE 20-17).
7. CONNECT VEHICLE POWER (PAGE 9-186).
8. RETRIEVE BRIDGE (TM 5-5420-232-10).









End of Task

3h1277

WIRING HARNESS 2W301 REPLACEMENT (Sheet 1 of 2)

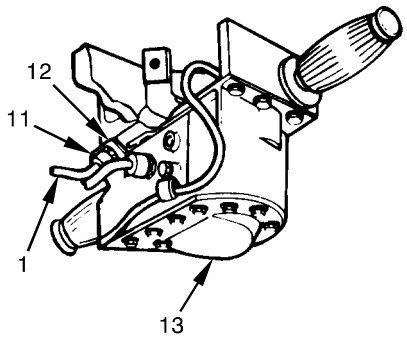
TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)
Adapter, 3/8-inch to 1/2-inch (Item 6, Appendix E)
Torque wrench, 0-200 in-lb (Item 325, Appendix E)

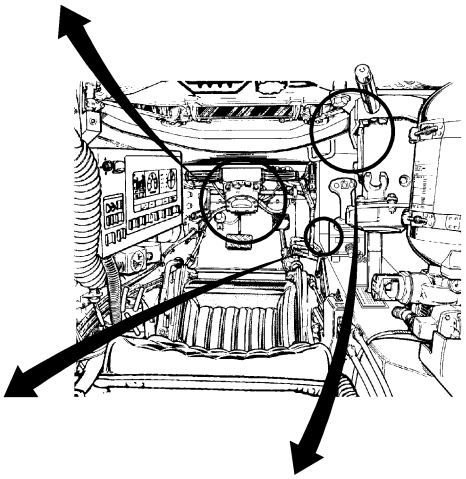
SUPPLIES: Electrical tiedown strap (Item 448, Appendix G) (3 required)
Lockwasher (Item 117, Appendix G) (4 required)
Sealing compound primer (Item 91, Appendix C)

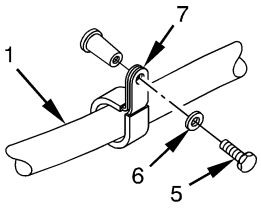
EQUIPMENT CONDITION: Vehicle power disconnected (page 9-159)
DVE storage mount removed (page 19-125)

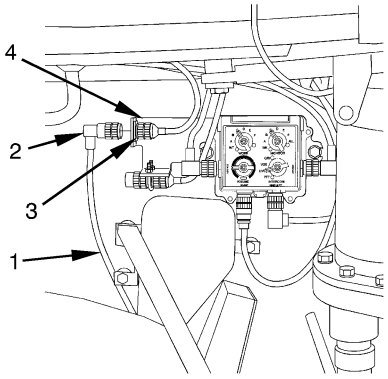
REMOVAL:

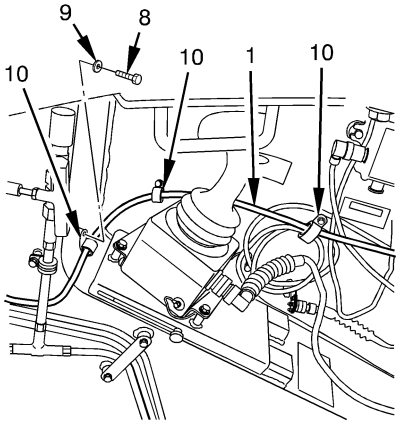
1. REMOVE HARNESS (1).
   a. Disconnect electrical plug connector 2W301-P2 (2) from receptacle connector 2W320-J2 (3) on intercom box (4).
   b. Remove four screws (5) and lockwashers (6) from clamps (7). Remove clamps (7) from harness (1).
   c. Remove three screws (8) and washers (9) from clamps (10). Remove clamps (10) from harness (1).
   d. Remove three electrical tiedown straps from harness (1).
   e. Disconnect electrical plug connector 2W301-P1 (11) from receptacle connector 2A105-J2 (12) on shift select assembly (13).
   f. Remove harness (1) from vehicle.
2. INSPECT PARTS FOR DAMAGE. REPLACE AS REQUIRED.











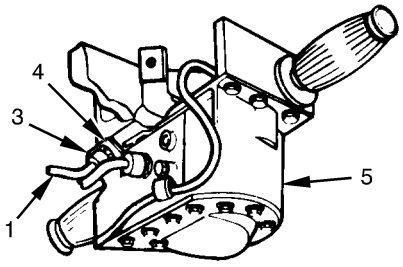
Go on to Sheet 2

habw4141

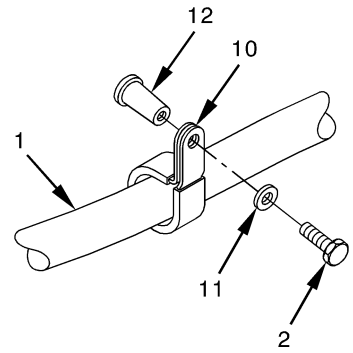
WIRING HARNESS 2W301 REPLACEMENT (Sheet 2 of 2)

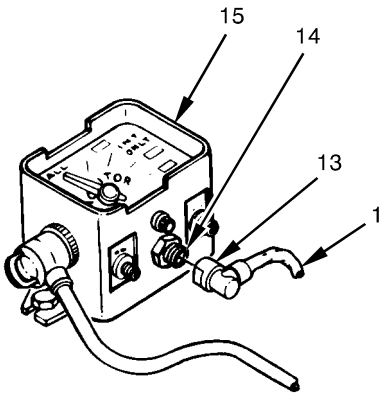
INSTALLATION:

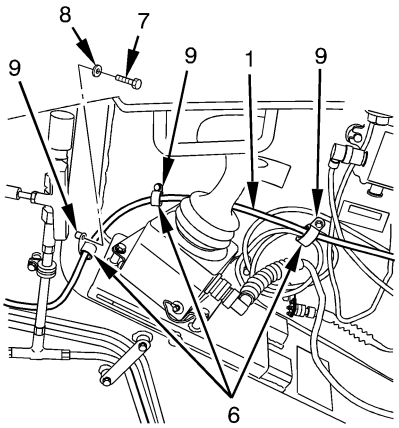
WARNING



1. INSTALL HARNESS (1). TORQUE FOUR SCREWS (2) BETWEEN 96-120 LB-IN (11-14 N•m).
   a. Position harness (1) on vehicle.
   b. Join connector 2W301-P1 (3) to connector 2A105-J2 (4) on shift select (5).
   c. Position three clamps (6) on harness (1).
   d. Apply sealing compound primer on threads of three screws (7). Install screws (7) and washers (8) to attach three clamps (6) to standoffs (9).
   e. Install three new electrical tiedown straps on harness (1).
   f. Put four clamps (10) on harness (1).
   g. Apply sealing compound primer on threads of screws (2). Loosely install screws (2) and new lockwashers (11) to standoffs (12).
   h. Torque screws (2) between 96-120 lb-in (11-14 N•m).
   i. Join connector 2W301-P2 (13) to connector 2W320-J2 (14) on intercom box (15).
2. INSTALL DVE STORAGE MOUNT (PAGE 19-125).
3. CONNECT VEHICLE POWER (PAGE 9-186).







End of Task

habw4142

WIRING HARNESS 2W326-10 REPLACEMENT (Sheet 1 of 1)

TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)

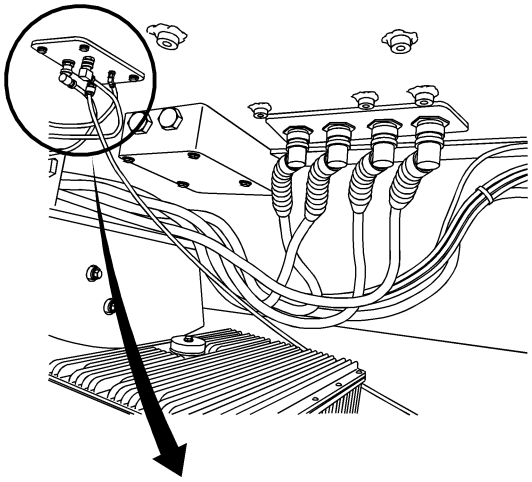
EQUIPMENT CONDITION: Vehicle power disconnected (page 9-159)

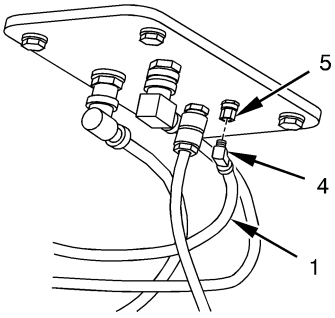
REMOVAL:

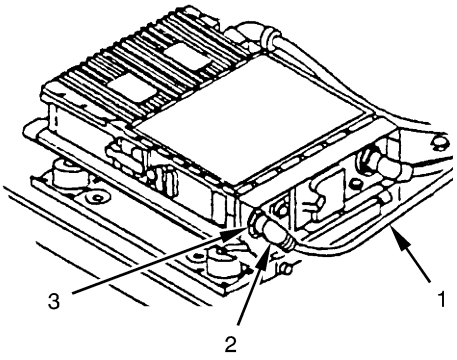
1. REMOVE WIRING HARNESS (1).
   a. Disconnect harness connector 2W326-10 P1 (2) from enhanced position location reporting system (EPLRS) connector 2A351 J2 (3).
   b. Disconnect harness connector 2W326-10 P2 (4) from launcher quick disconnect panel connector 5W231 J1 (5).
   c. Remove harness (1) from chassis.
2. INSPECT PARTS FOR DAMAGE. REPLACE AS REQUIRED.

INSTALLATION:

1. INSTALL HARNESS (1).
   a. Position harness (1) in chassis.
   b. Join harness connector 2W326-10 P2 (4) to launcher quick disconnect panel connector 5W231 J1 (5).
   c. Join harness connector 2W326-10 P1 (2) to EPLRS connector 2A351 J2 (3).
2. CONNECT VEHICLE POWER (PAGE 9-186).







End of Task 3h1280

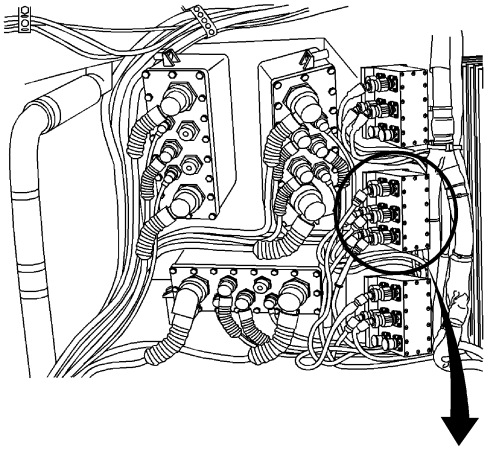
WIRING HARNESS 2W638-10 REPLACEMENT (Sheet 1 of 1)

TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)

EQUIPMENT CONDITION: Vehicle power disconnected (page 9-159)

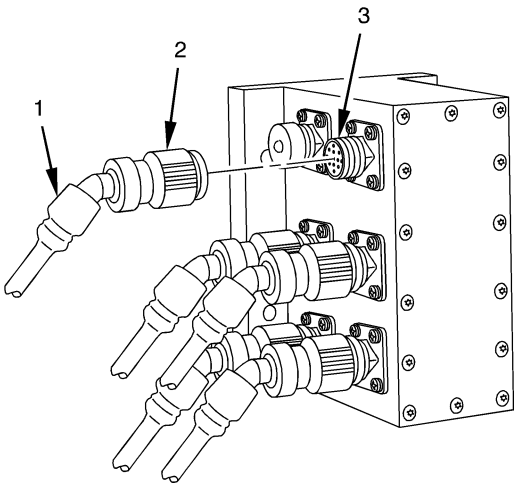
REMOVAL:

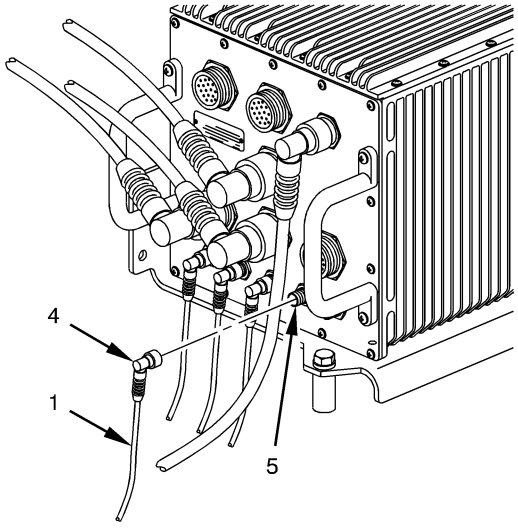
1. REMOVE WIRING HARNESS (1) .
   a. Disconnect harness connector 2W638-10 P1 (2) from utility bus coupler connector 2T640 J4 (3).
   b. Disconnect harness connector 2W638-10 P2 (4) from improved launcher electronics control unit connector 2A605 J11 (5).
   c. Remove harness clamping hardware (page 9-379).
   d. Remove harness (1) from chassis.
2. INSPECT PARTS FOR DAMAGE. REPLACE AS REQUIRED.



INSTALLATION:

1. INSTALL HARNESS (1).
   a. Position harness (1) in chassis.
   b. Install harness clamping hardware (page 9-379).
   c. Join harness connector 2W638-10 P2 (4) to improved launcher electronics control unit connector 2A605 J11 (5).
   d. Join harness connector 2W638-10 P1 (2) to utility bus coupler connector 2T640 J4 (3).
2. CONNECT VEHICLE POWER (PAGE 9-186).





End of Task

3h1237

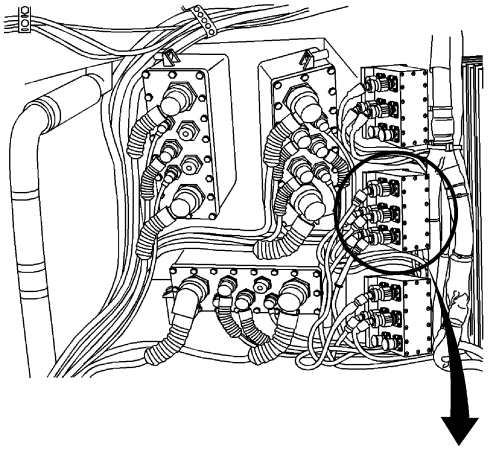
WIRING HARNESS 2W639-10 REPLACEMENT (Sheet 1 of 1)

TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)

EQUIPMENT CONDITION: Vehicle power disconnected (page 9-159)

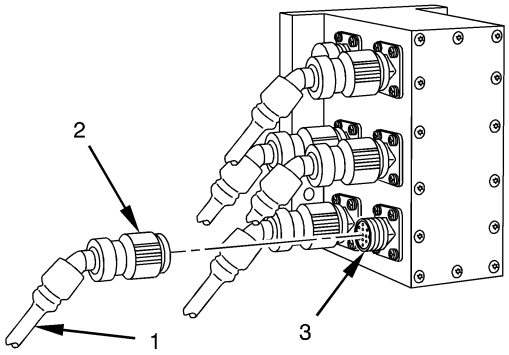
REMOVAL:

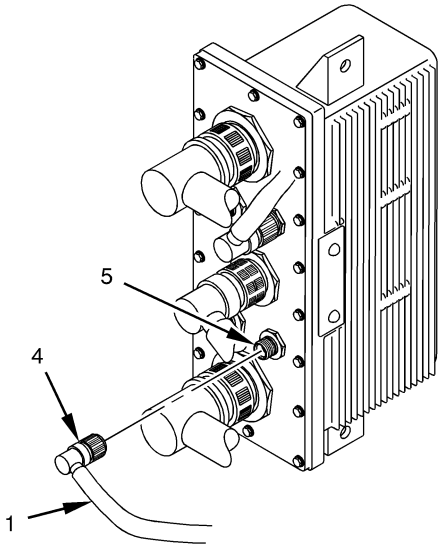
1. REMOVE WIRING HARNESS (1).
   a. Disconnect harness connector 2W639-10 P1 (2) from utility bus coupler connector 2T640 J6 (3).
   b. Disconnect harness connector 2W639-10 P2 (4) from remote switching module connector 2A139 J2 (5).
   c. Remove harness clamping hardware (page 9-379).
   d. Remove harness (1) from chassis.
2. INSPECT PARTS FOR DAMAGE. REPLACE AS REQUIRED.



INSTALLATION:

1. INSTALL HARNESS (1).
   a. Position harness (1) in chassis.
   b. Install harness clamping hardware (page 9-379).
   c. Join harness connector 2W639-10 P2 (4) to remote switching module connector 2A139 J2 (5).
   d. Join harness connector 2W639-10 P1 (2) to utility bus coupler connector 2T640 J6 (3).
2. CONNECT VEHICLE POWER (PAGE 9-186).





End of Task

3h1238

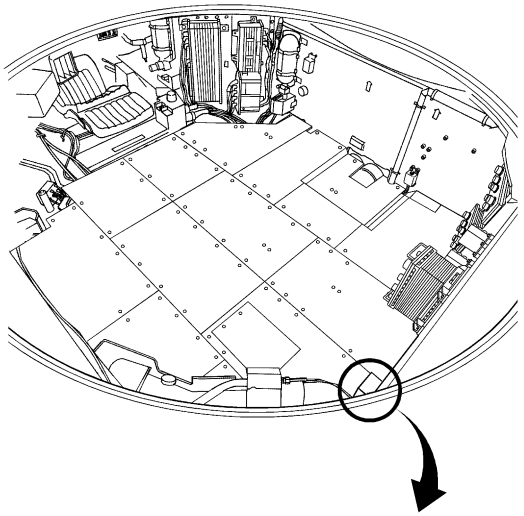
WIRING HARNESS 2W640-10 REPLACEMENT (Sheet 1 of 1)

TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)

EQUIPMENT CONDITION: Vehicle power disconnected (page 9-159)

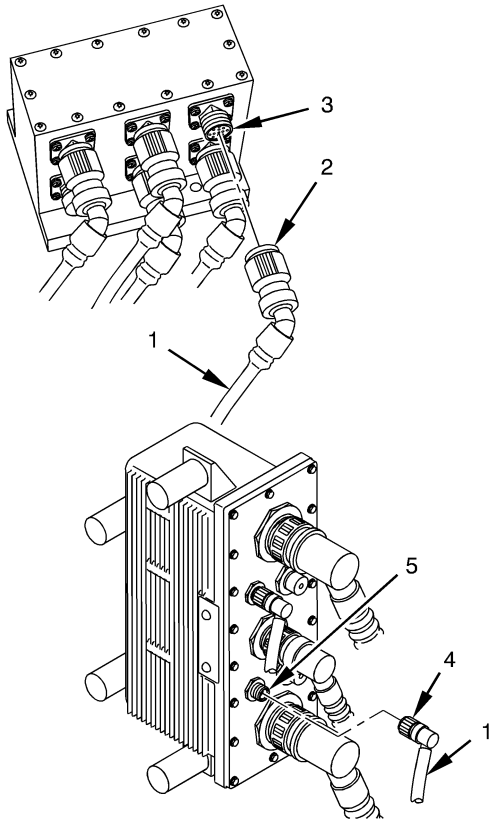
REMOVAL:

1. REMOVE WIRING HARNESS (1).
   a. Disconnect harness connector 2W640-10 P1 (2) from utility bus coupler connector 2T641 J6 (3).
   b. Disconnect harness connector 2W640-10 P2 (4) from remote switching module connector 2A139 J3 (5).
   c. Remove harness clamping hardware (page 9-379).
   d. Remove harness (1) from chassis.
2. INSPECT PARTS FOR DAMAGE. REPLACE AS REQUIRED.



INSTALLATION:

1. INSTALL HARNESS (1).
   a. Position harness (1) in chassis.
   b. Install harness clamping hardware (page 9-379).
   c. Join harness connector 2W640-10 P2 (4) to remote switching module connector 2A139 J3 (5).
   d. Join harness connector 2W640-10 P1 (2) to utility bus coupler connector 2T641 J6 (3).
2. CONNECT VEHICLE POWER (PAGE 9-186).



End of Task

3h1239

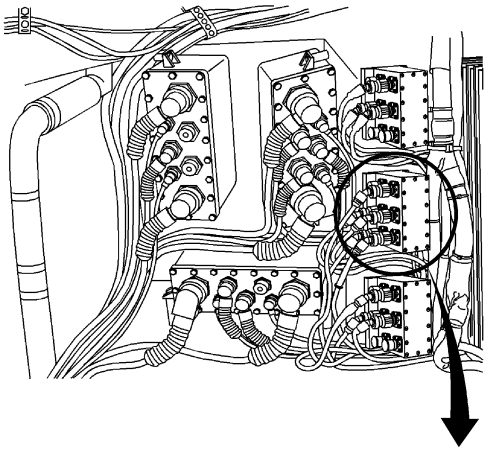
WIRING HARNESS 2W641-10 REPLACEMENT (Sheet 1 of 1)

TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)

EQUIPMENT CONDITION: Vehicle power disconnected (page 9-159)

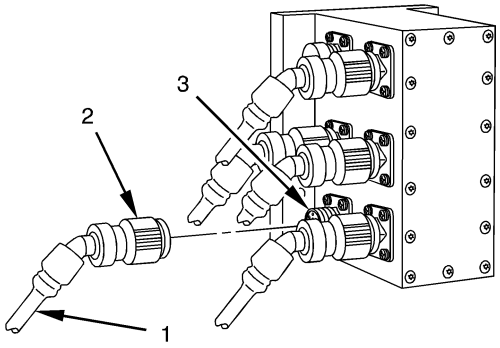
REMOVAL:

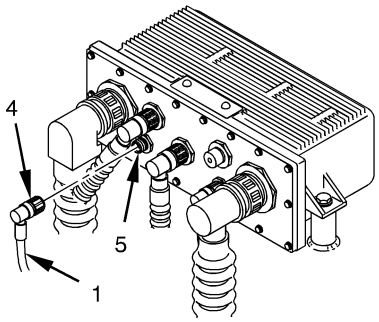
1. REMOVE WIRING HARNESS (1).
   a. Disconnect harness connector 2W641-10 P1 (2) from utility bus coupler connector 2T640 J3 (3).
   b. Disconnect harness connector 2W641-10 P2 (4) from remote switching module connector 2A130 J2 (5).
   c. Remove harness clamping hardware (page 9-379).
   d. Remove harness (1) from chassis.
2. INSPECT PARTS FOR DAMAGE. REPLACE AS REQUIRED.



INSTALLATION:

1. INSTALL HARNESS (1).
   a. Position harness (1) in chassis.
   b. Install harness clamping hardware (page 9-379).
   c. Join harness connector 2W641-10 P2 (4) to remote switching module connector 2A130 J2 (5).
   d. Join harness connector 2W641-10 P1 (2) to utility bus coupler connector 2T640 J3 (3).
2. CONNECT VEHICLE POWER (PAGE 9-186).





End of Task 3h1240

WIRING HARNESS 2W642-10 REPLACEMENT (Sheet 1 of 1)

TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)

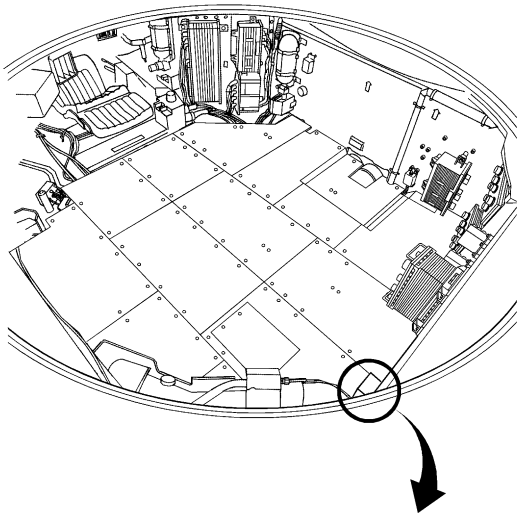
EQUIPMENT CONDITION: Vehicle power disconnected (page 9-159)

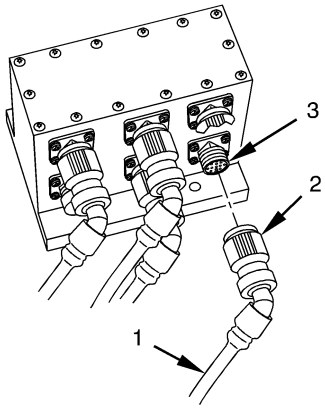
REMOVAL:

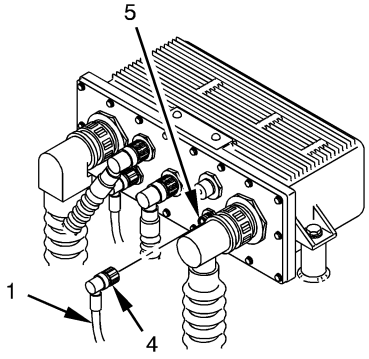
1. REMOVE WIRING HARNESS (1).
   a. Disconnect harness connector 2W642-10 P1 (2) from utility bus coupler connector 2T641 J3 (3).
   b. Disconnect harness connector 2W642-10 P2 (4) from remote switching module connector 2A130 J3 (5).
   c. Remove harness clamping hardware (page 9-379).
   d. Remove harness (1) from chassis.
2. INSPECT PARTS FOR DAMAGE. REPLACE AS REQUIRED.

INSTALLATION:

1. INSTALL HARNESS (1).
   a. Position harness (1) in chassis.
   b. Install harness clamping hardware (page 9-379).
   c. Join harness connector 2W642-10 P2 (4) to remote switching module connector 2A130 J3 (5).
   d. Join harness connector 2W642-10 P1 (2) to utility bus coupler connector 2T641 J3 (3).
2. CONNECT VEHICLE POWER (PAGE 9-186).







End of Task

3h1241

WIRING HARNESS 2W645-10 REPLACEMENT (Sheet 1 of 1)

TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)

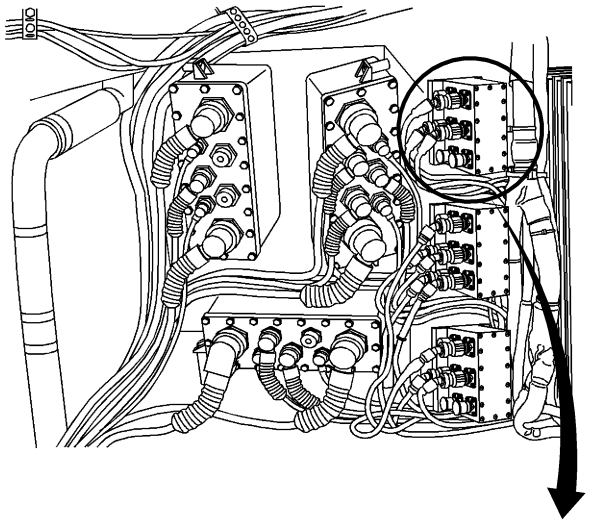
EQUIPMENT CONDITION: Vehicle power disconnected (page 9-159)

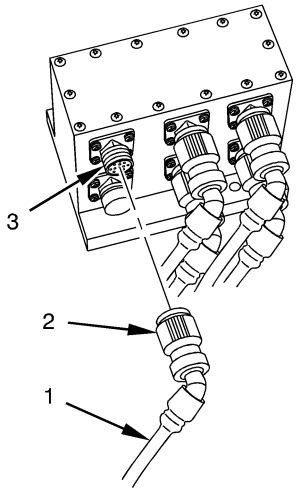
REMOVAL:

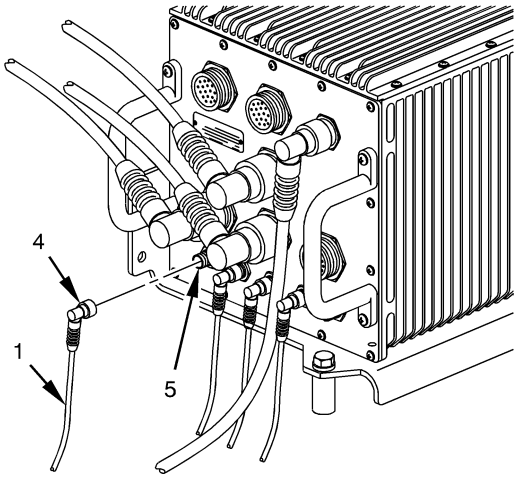
1. REMOVE WIRING HARNESS (1).
   a. Disconnect harness connector 2W643-10 P1 (2) from utility bus coupler connector 2T651 J4 (3).
   b. Disconnect harness connector 2W643-10 P2 (4) from improved launcher electronics control unit connector 2A605 J8 (5).
   c. Remove harness clamping hardware (page 9-379).
   d. Remove harness (1) from chassis.
2. INSPECT PARTS FOR DAMAGE. REPLACE AS REQUIRED.

INSTALLATION:

1. INSTALL HARNESS (1).
   a. Position harness (1) in chassis.
   b. Install harness clamping hardware (page 9-379).
   c. Join harness connector 2W643-10 P2 (4) to improved launcher electronics control unit connector 2A605 J8 (5).
   d. Join harness connector 2W643-10 P1 (2) to utility bus coupler connector 2T651 J4 (3).
2. CONNECT VEHICLE POWER (PAGE 9-186).







End of Task

3h1242

ELECTRICAL PLUG CONNECTOR 3W101/2-P1 OR 3W101/2-P2 REPLACEMENT (Sheet 4 of 4)

NOTE

Do step 3 to install two covers (1) on connector (2 or 3). Connector 3W101/2-P1 (2) is shown.

3. INSTALL COVERS (1).

   a. Apply sealing compound on screw (4). Put washer (5) on screw (4). Put covers (1) on connector (2).

   b. Put screw (4) through holes (6) in covers (1). Put washer (7) and nut (8) on screw (4) and tighten.

   c. Apply sealing compound on two screws (9). Put two washers (10) on screws (9). Install screws (9) and washers (10) to covers (1).

NOTE

This is end of task if powerpack is out of vehicle.

4. INSTALL CONNECTOR (2 OR 3) TO PANEL BOX (11).

NOTE

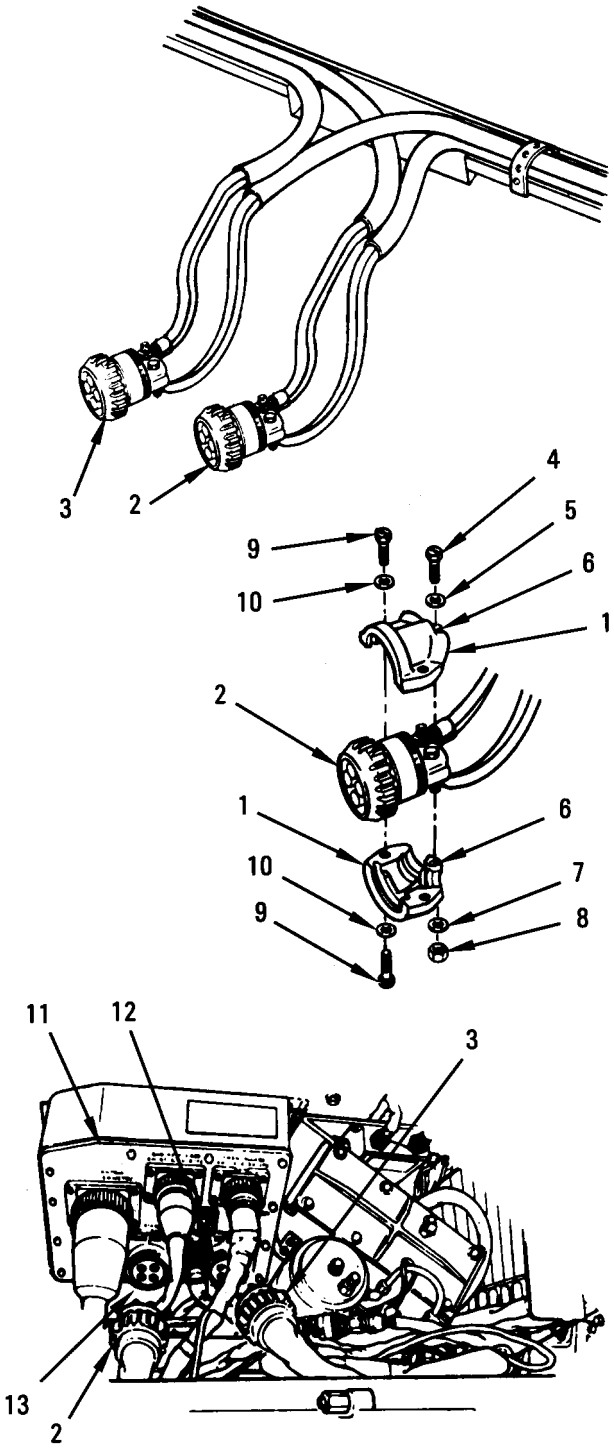
- To install connector 3W101/2-P2 (3), do step a.
- To install connector 3W101/2-P1 (2), do step b.

   a. Join connector (3) to panel box connector 2W158-J1 (12).

   b. Join connector (2) to panel box connector 2W157-J1 (13).

5. CONNECT VEHICLE POWER (PAGE 9-186).

6. CLOSE TOP DECK RIGHT GRILLE DOORS (TM 5-5420-232-10).



End of Task

2w2231

GENERATOR SPECIAL CABLE ASSEMBLY 3W102-1 OR 3W102-2 REPLACEMENT (Sheet 1 of 8)

TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)
Deep style socket, 3/8-inch drive, 3/4-inch (Item 250, Appendix E)
Extension, 3/8-inch drive, 6-inch (Item 77, Appendix E)
Ratchet handle, 3/8-inch drive (Item 109, Appendix E)
Socket, 3/8-inch drive, 7/16-inch (Item 234, Appendix E)
Socket, 3/8-inch drive, 1/2-inch (Item 229, Appendix E)
Socket, 3/8-inch drive, 9/16-inch (Item 235, Appendix E)
Socket, 3/8-inch drive, 5/8-inch (Item 233, Appendix E)
Torque wrench, 0-600 in-lb (Item 332, Appendix E)

SUPPLIES: Electrical tiedown strap (Item 449, Appendix G) (as required)
Lockwasher (Item 117, Appendix G) (5 required)
Lockwasher (Item 111, Appendix G) (8 required)
Lockwasher (Item 128, Appendix G) (as required)
Lockwasher (Item 129, Appendix G) (as required)
Sealant adhesive (Item 1, Appendix C)
Sealing compound (Item 109, Appendix C)

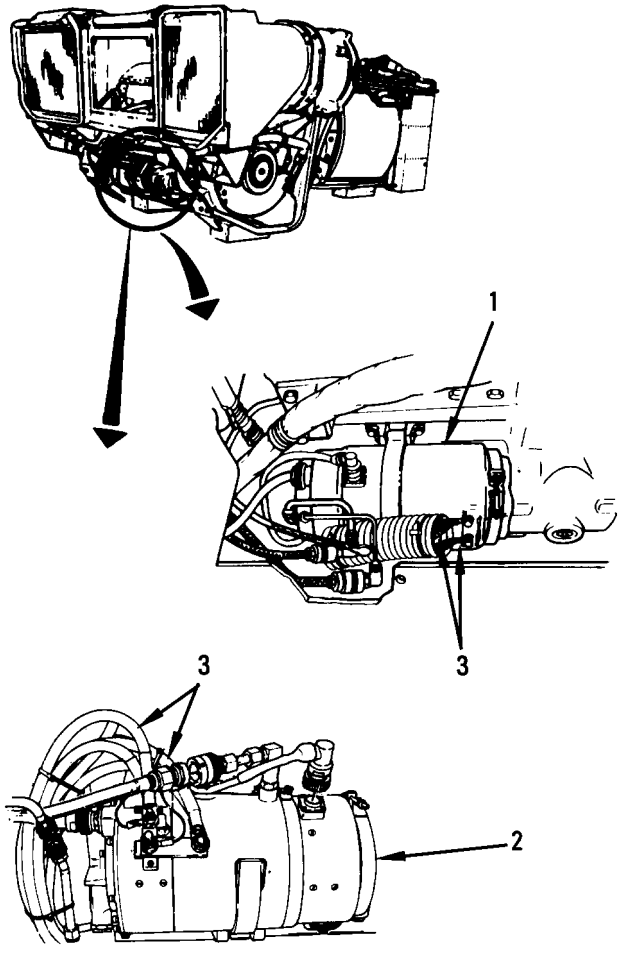
EQUIPMENT CONDITION: Lower fan assembly airflow baffle removed (page 8-2)
Lower side air baffle removed (page 8-5)
Lower rear wiring harness track removed (page 9-51)

REMOVAL:

NOTE

- There are two different style engine AC generators (1, 2). Both are shown.
- If doing this task to remove special cable assembly 3W102-1 or 3W102-2 (3) off generator (1) with P/N 977-J175-2 or 977-J327-3, do step 1.
- If doing this task to remove cable 3W102-1 or 3W102-2 (3) off generator (2) with P/N 30B95-77, do step 2.

1. REMOVE CABLE 3W102-1 OR 3W102-2 (3) FROM GENERATOR P/N 977-J175-2 OR 977-J327-3 (1). GO TO STEP 3.



Go on to Sheet 2

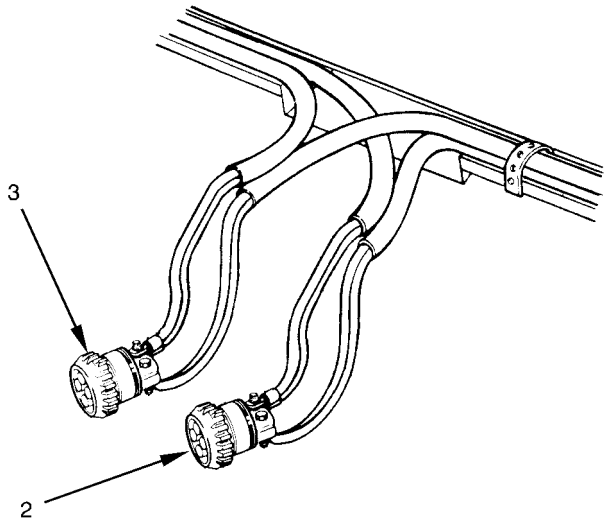
2w4733

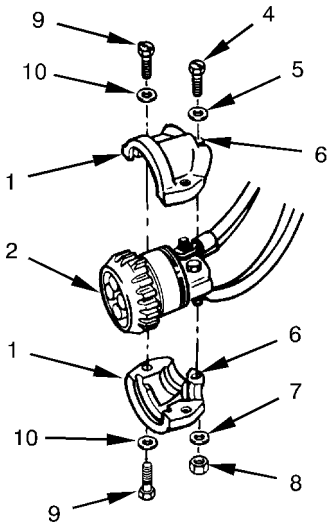
GENERATOR SPECIAL CABLE ASSEMBLY 3W102-1 OR 3W102-2 REPLACEMENT (Sheet 8 of 8)

NOTE

Do step 8 to install two covers (1) on connector 3W101/2-P1 (2) or 3W101/2-P2 (3). Connector 3W101/2-P1 (2) is shown.

8. INSTALL COVERS (1).
   a. Apply sealing compound on screw (4). Put washer (5) on screw (4). Put two covers (1) on connector 3W101/2-P1 (2).
   b. Put screw (4) through holes (6) in two covers (1). Put washer (7) and nut (8) on screw (4) and tighten.
   c. Apply sealing compound on two screws (9). Put two washers (10) on screws (9). Install two screws (9) and washers (10) to covers (1).
9. INSTALL LOWER SIDE AIR BAFFLE (PAGE 8-5).
10. INSTALL UPPER FAN ASSEMBLY AIRFLOW BAFFLE (PAGE 8-3).
11. INSTALL LOWER FAN ASSEMBLY AIRFLOW BAFFLE (PAGE 8-2).





End of Task

2w2194

GENERATOR BRANCHED WIRING HARNESS 3W103 REPLACEMENT (Sheet 1 of 3)

TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)
Ratchet handle, 3/8-inch drive (Item 109, Appendix E)
Socket, 3/8-inch drive, 7/16-inch (Item 234, Appendix E)
Socket, 3/8-inch drive, 9/16-inch (Item 235, Appendix E)

SUPPLIES: Electrical tiedown strap (Item 449, Appendix G) (as required)
Lockwasher (Item 111, Appendix G) (8 required)
Sealing compound (Item 109, Appendix C)

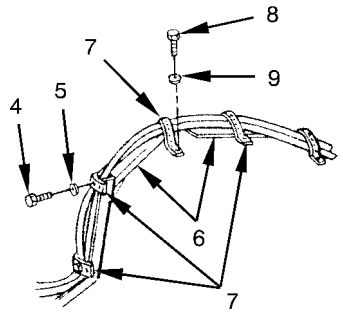
EQUIPMENT CONDITION: Lower side air baffle removed (page 8-5)
Lower fan assembly airflow baffle removed (page 8-2)
Lower rear wiring harness track removed (page 9-51)

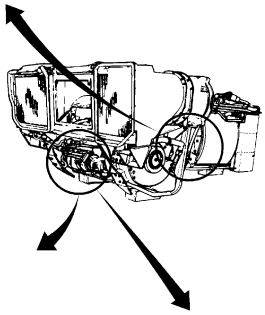
REMOVAL:

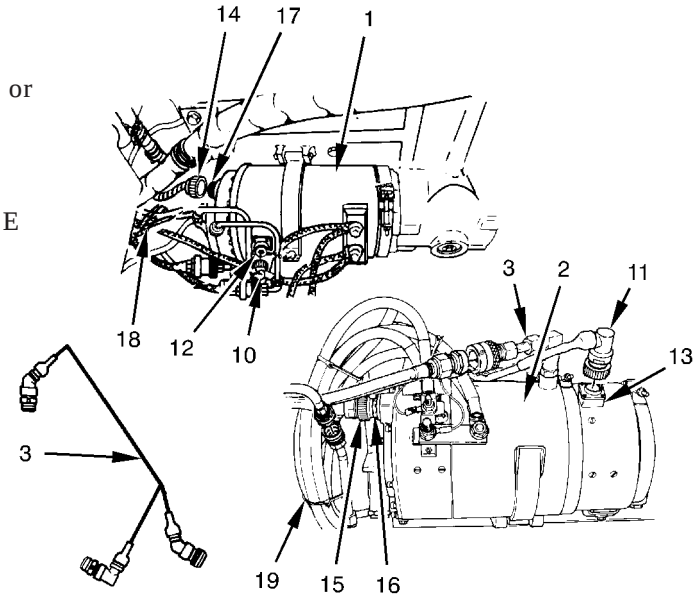
NOTE

There are two different style engine AC generators (1, 2). Both are shown.

1. REMOVE HARNESS (3).
   a. Remove four screws (4), and washers (5) from one side of two cable ducts (6) and four electrical tiedown straps (7).
   b. Remove four screws (8) and washers (9) from other end of straps (7). Apply sealing compound to threads of screws (8). Install one screw (8) and washer (9) in each of four straps (7).
   c. Disconnect electrical plug connector 3W103-P3 (10 or 11) from receptacle connector 3G101-J2 (12 or 13) on generator (1 or 2).
   d. Disconnect electrical plug connector 3W103-P2 (14 or 15) from receptacle connector 3G101-J1 (16 or 17) on generator (1 or 2).
   e. Cut off any electrical tiedown straps (18 or 19) from harness 3W103 (3).
   f. Lift harness (3) away from powerpack.
2. INSPECT PARTS FOR DAMAGE. REPLACE AS REQUIRED.







Go on to Sheet 2

3w4949

BRANCHED WIRING HARNESS 3W104-9 REPLACEMENT (Sheet 1 of 7)

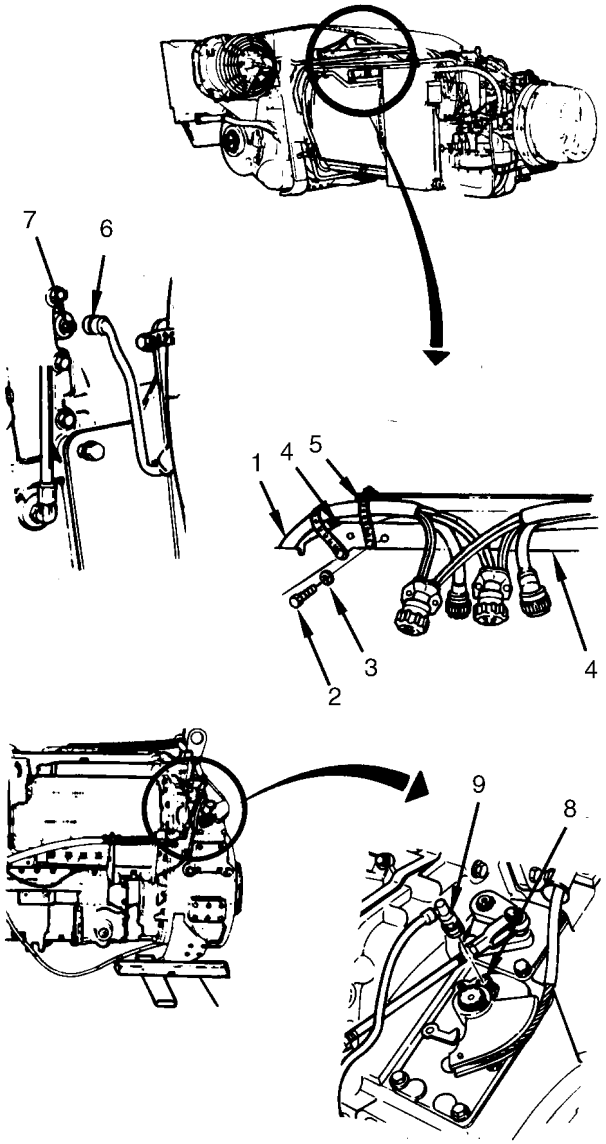
TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)
Extension, 3/8-inch drive, 6-inch (Item 77, Appendix E)
Ratchet handle, 3/8-inch drive (Item 109, Appendix E)
Socket, 3/8-inch drive, 7/16-inch (Item 234, Appendix E)
Socket, 3/8-inch drive, 9/16-inch (Item 235, Appendix E)

SUPPLIES: Electrical tiedown strap (Item 452, Appendix G) (as required)
Lockwasher (Item 117, Appendix G) (6 required)
Lockwasher (Item 111, Appendix G) (as required)
Sealing compound (Item 109, Appendix C)

EQUIPMENT CONDITION: Powerpack removed (page 4-12)
Turbine exhaust duct removed (page 4-5)
Left side oil cooler assembly removed (page 10-62)
Lower rear wiring harness track removed (page 9-51)
Lower side air baffle removed (page 8-5)
Lower fan assembly airflow baffle removed (page 8-2)

REMOVAL:

1. REMOVE HARNESS (1) FROM RIGHT SIDE OF POWERPACK.
   a. Remove seven screws (2) and washers (3) from one side of two cable ducts (4) and seven electrical tiedown straps (5).
   b. Disconnect connector 3W104-9-P2 (6) from thermostatic switch receptacle connector 3S102/3J1 (7).
   c. Disconnect electrical plug connector 3W104-9-P3 (8) from right parking brake switch receptacle connector 3S105-J1 (9).

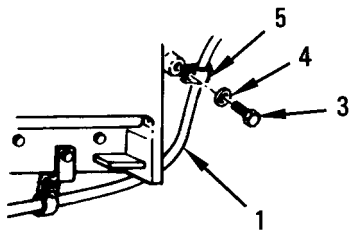


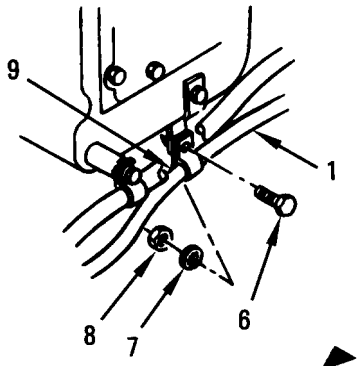
Go on to Sheet 2

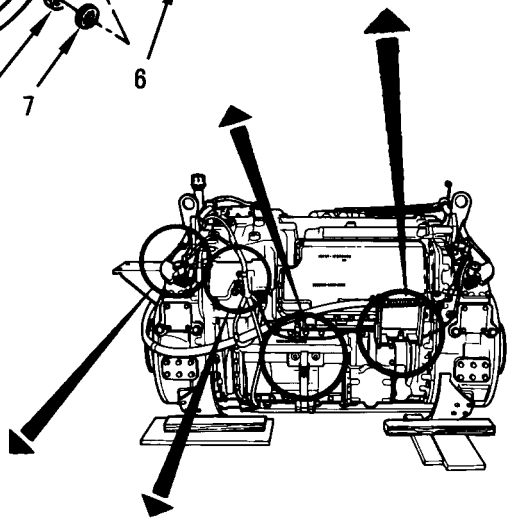
2w5406

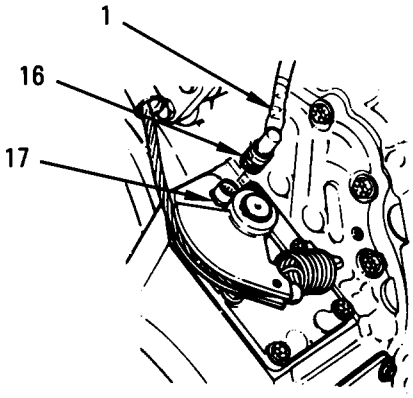
BRANCHED WIRING HARNESS 3W104-9 REPLACEMENT (Sheet 2 of 7)

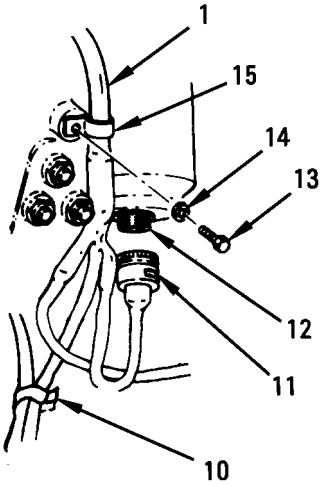
2. REMOVE HARNESS (1) FROM REAR OF TRANSMISSION (2).
   a. Remove screw (3) and lockwasher (4) from loop clamp (5). Take clamp (5) off harness (1).
   b. Remove two screws (6), lockwashers (7), and nuts (8) from loop clamps (9). Take clamps (9) off harness (1).
   c. Cut off electrical tiedown straps (10), as required.
   d. Disconnect electrical plug connector 3W104-9-P4 (11) from transmission shift solenoid/speed sensor receptacle connector 3A101-J1 (12).
   e. Remove screw (13) and lockwasher (14) from loop clamp (15). Take clamp (15) off harness (1).
3. REMOVE HARNESS (1) FROM LEFT REAR OF TRANSMISSION (2).
   a. Disconnect electrical plug connector 3W104-9-P5 (16) from left parking brake switch assembly receptacle connector 3S104-J1 (17).











Go on to Sheet 3

2w2214

STARTER RELAY POWER CABLE ASSEMBLY 3W108 REPLACEMENT (Sheet 2 of 2)

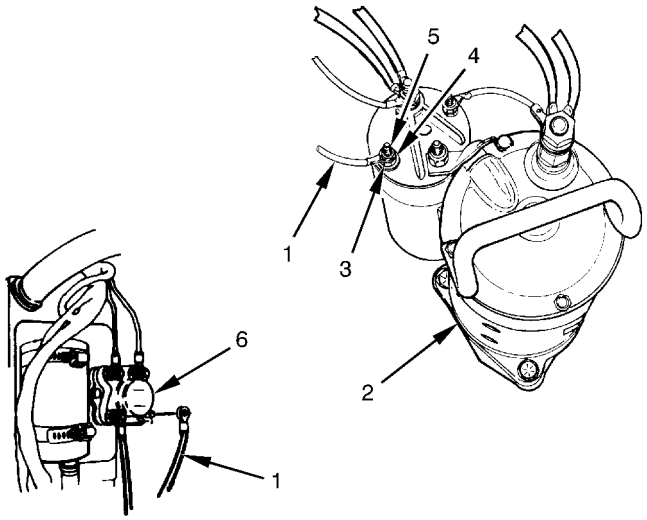
INSTALLATION:

1. LAY CABLE (1) IN PLACE ON POWERPACK.

CAUTION

When installing cable (1) to starter (2), do not overtighten nuts (3, 4) on solenoid terminal 3L101-1 (5). If nuts (3, 4) are overtightened, terminal (5) may be stripped or broken.

2. INSTALL CABLE (1) TO STARTER (2) AND RELAY (6).
   a. Place cable terminal 3W108-E1 (7) on terminal 3L101-E5 (8). Install nut (9) and lockwasher (10) to terminal (8).
   b. Place cable terminal 3W108-E2 (11) on relay terminal 3K101-A2 (12). Install nut (13), new lockwasher (14), and washer (15).

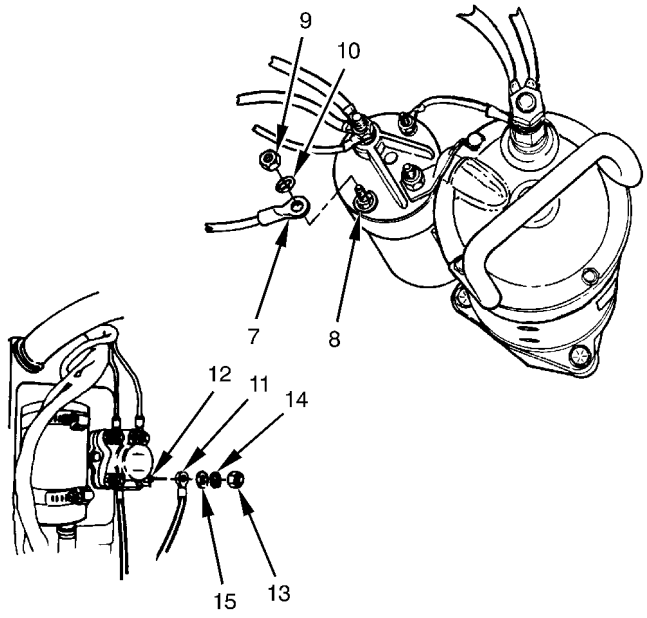


WARNING

WARNING

Make sure terminals (8, 12) and mounting hardware are coated with adhesive. Uninsulated metal components may cause electrical arcing and an engine compartment fire.

3. SPREAD A HEAVY COAT OF ADHESIVE ON EXPOSED TERMINALS (8, 12).
4. CONNECT VEHICLE POWER (PAGE 9-186).
5. CLOSE TOP DECK RIGHT GRILLE DOORS (TM 5-5420-232-10).
6. INSTALL ENGINE ACCESS COVER (TM 5-5420-232-10).



End of Task

3w5177

STARTER RELAY POWER CABLE ASSEMBLY 3W109 REPLACEMENT (Sheet 1 of 2)

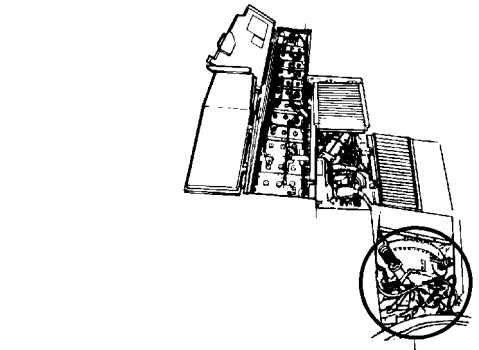
TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)
Deep style socket, 3/8-inch drive, 3/4-inch (Item 250, Appendix E)
Extension, 3/8-inch drive, 6-inch (Item 77, Appendix E)
Inspection mirror, 9-inch (Item 142, Appendix E)
Ratchet handle, 3/8-inch drive (Item 109, Appendix E)
Socket, 3/8-inch drive, 7/16-inch (Item 234, Appendix E)
Torque wrench, 0-600 in-lb (Item 332, Appendix E)

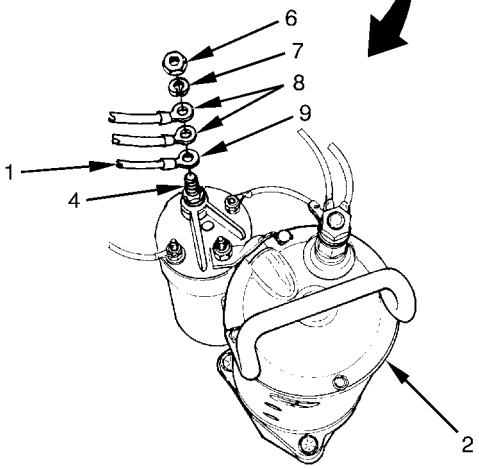
SUPPLIES: Lockwasher (Item 531, Appendix G)
Lockwasher (Item 113, Appendix G)
Sealant adhesive (Item 1, Appendix C)

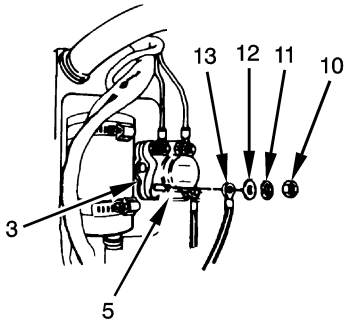
EQUIPMENT CONDITION: Engine access cover removed (TM 5-5420-232-10)
Top deck right grille doors opened (TM 5-5420-232-10)
Vehicle power disconnected (page 9-159)

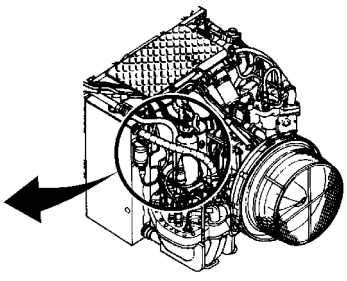
REMOVAL:

1. REMOVE CABLE (1) FROM STARTER MOTOR (2) AND 100 AMP RELAY (3).
   a. Cut and peel adhesive off starter solenoid terminal 3L101-2 (4) and relay terminal 3K101-A1 (5).
   b. Remove nut (6), lockwasher (7), two cable lug terminals 3W101-2E2 (8) and lug terminal 3W109-E1 (9).
   c. Remove nut (10), lockwasher (11), washer (12), and cable lug terminal 3W109-E2 (13) on terminal A1 (5).
2. LIFT CABLE (1) FROM RELAY (3) AND STARTER (2). INSPECT PARTS FOR DAMAGE. REPLACE AS REQUIRED.









Go on to Sheet 2

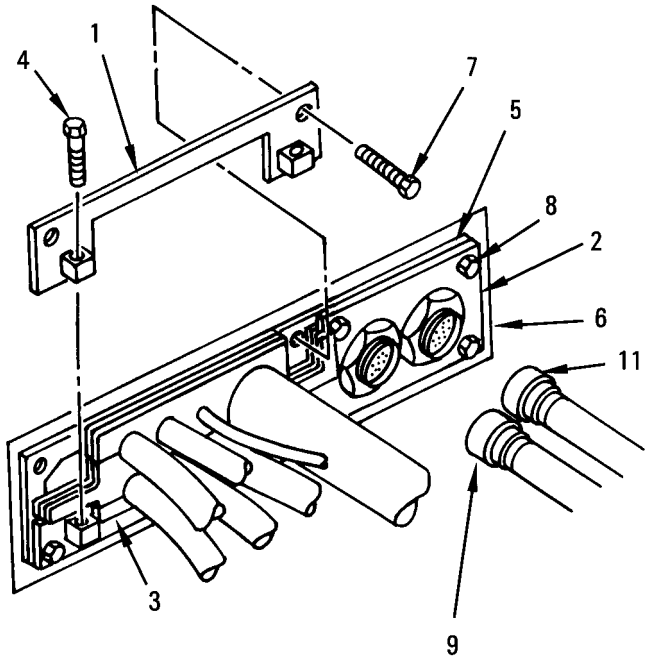
3w5180

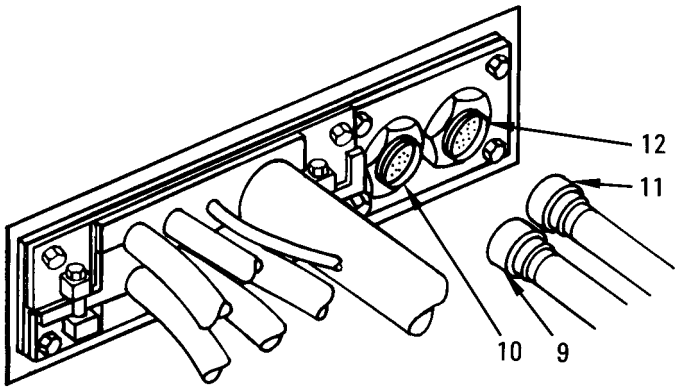
FEED-THROUGH PLATE AND PLATE REPLACEMENT (Sheet 4 of 4)

3. INSTALL PLATE (1) ON PLATE (2).
   a. Aline plate (1) with grommet (3) and plate (2).
   b. Apply sealing compound on two screws (4). Install screws (4) in plate (1) and plate (2) until plate (1) alines with gasket (5) and bulkhead (6).
   c. Apply sealing compound on two screws (7). Install screws (7) to plate (1).
4. TORQUE SEVEN SCREWS (7, 8) BETWEEN 25-30 N•m (18-22 LB-FT).
5. TORQUE SCREWS (4) BETWEEN 95-100 LB-IN (10-11 N•m).

WARNING

6. REMOVE EXCESS ADHESIVE FROM PLATE (1) AND PLATE (2) WITH SOLVENT AND RAGS.
7. JOIN CONNECTOR 2W110-10 P7 (9) TO CONNECTOR 2W160 J1 (10).
8. JOIN CONNECTOR 2W158-8 P4 (11) TO CONNECTOR 2W159-8 J1 (12).
9. LET ADHESIVE DRY FOR 2 HOURS AT NORMAL TEMPERATURE BEFORE USE.
10. CONNECT VEHICLE POWER (PAGE 9-186).





End of Task

3w4647

RECEPTACLE DUMMY CONNECTOR REPLACEMENT (Sheet 1 of 1)

TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)

SUPPLIES: Self-locking nut (Item 551, Appendix G) (4 required)

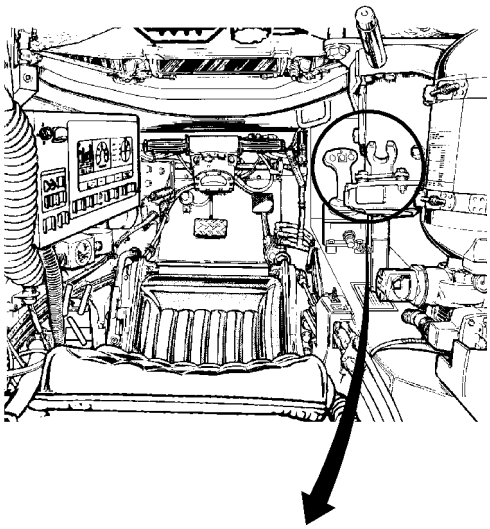
REMOVAL:

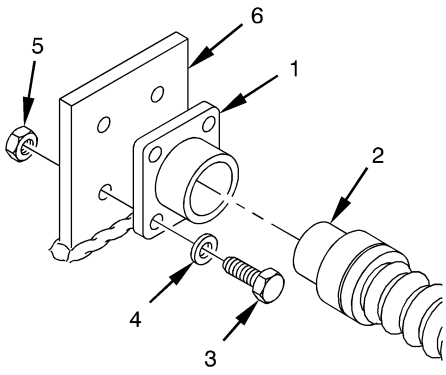
1. REMOVE RECEPTACLE (1).
   a. Disconnect electrical plug connector 2W104-8 P2 (2) from receptacle (1).
   b. Remove four screws (3), washers (4), and self-locking nuts (5) that attach receptacle (1) to bracket (6).
2. INSPECT PARTS FOR DAMAGE. REPLACE AS REQUIRED.

INSTALLATION:

INSTALL RECEPTACLE (1).

a. Position receptacle (1) on bracket (6).
b. Install four screws (3), washers (4), and four new self locking nuts (5) to attach receptacle (1) to bracket (6).
c. Join connector 2W104-8 P2 (2) to receptacle (1).





End of Task

habw4149

WIRING HARNESS CLAMPING HARDWARE REPLACEMENT (Sheet 1 of 4)

TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)

SUPPLIES: Acid swabbing brush (Item 26, Appendix C) (as required)
Electrical tiedown strap (Item 451, Appendix G) (as required)
Lockwasher (Item 117, Appendix G) (as required)
Sealing compound (Item 109, Appendix C) (as required)

HARNESS HARDWARE REPLACEMENT OVERVIEW

NOTE

This procedure tells you how to replace wiring harness clamping hardware in the XM104 vehicle chassis. Basic steps used to replace all types of clamping hardware are covered in this task.

1. REMOVE CLAMPING HARDWARE.
   a. Follow steps of specific wiring harness replacement task to disconnect each wiring harness connector.
   b. After disconnect of each connector follow wiring harness branch or cable and note or tag the type of clamping hardware used.
   c. Find the type of clamping hardware in the following procedures and follow them for removal.
2. INSPECT PARTS FOR DAMAGE. REPLACE AS REQUIRED.
3. INSTALL CLAMPING HARDWARE.
   a. Follow steps of specific wiring harness installation task to route harness and branches in original position in vehicle and connect all connectors.
   b. Using the installation steps of the clamping hardware tasks install all the attaching straps, clamps, and brackets as required.

Go on to Sheet 2

WIRING HARNESS CLAMPING HARDWARE REPLACEMENT (Sheet 2 of 4)

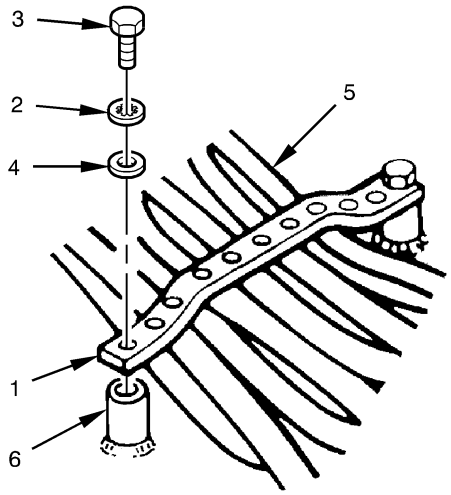
BULK LENGTH FLEXIBLE TYPE STRAP

REMOVAL:

NOTE

Use this procedure to replace any bulk length flexible style strap (1) (perforated or unperforated, plastic or metal). Perforated strap is shown. Attaching screws may or may not have lockwashers (2).

1. REMOVE STRAP (1).
   a. Remove attaching screws (3), lockwashers (2) (if used), and washers (4) from strap (1).
   b. Take strap (1) off harnesses (5).
   c. Remove strap (1).
2. INSPECT PARTS FOR DAMAGE. REPLACE AS REQUIRED.

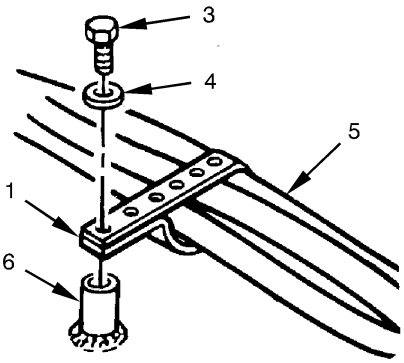


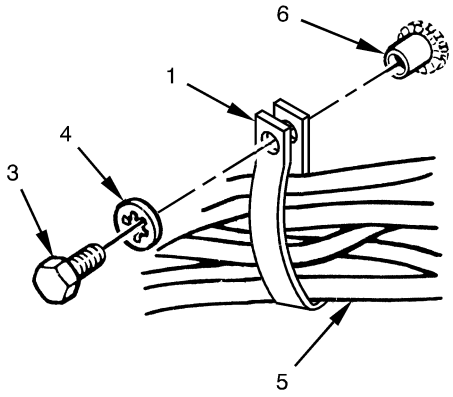
INSTALLATION:

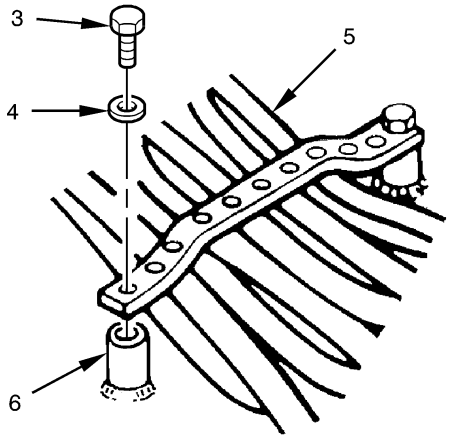
WARNING

INSTALL STRAP (1).

a. Position strap (1) over harnesses (5).
b. Coat threads of screw(s) (3) with sealing compound (where lockwashers are not used).
c. Attach strap (1) to boss (or bosses) (6) with screw(s) (3) (as required), new lockwashers (2) (where any were removed) and washers (4).







Go on to Sheet 3

habw4049

LAUNCH CONTROL HANDLE (LCH) AND BRACKETS REPLACEMENT (Sheet 1 of 1)

TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)
Torque wrench, 0-200 in-lb (Item 326, Appendix E)

SUPPLIES: Lockwasher (Item 477, Appendix G)
Lockwasher (Item 121, Appendix G)

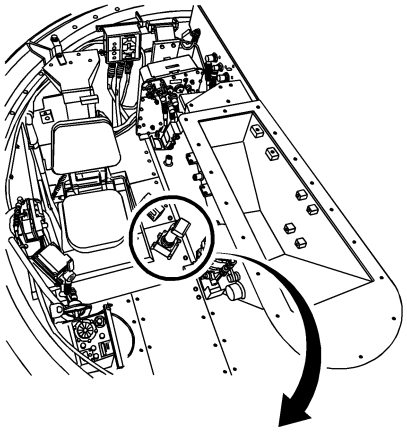
EQUIPMENT CONDITION: Vehicle power disconnected (page 9-159)

REMOVAL:

NOTE

There is one launch control handle (LCH) (1) at each crew station (driver's and commander's). Use this procedure to replace either LCH (1).

1. REMOVE LCH (1).
   a. Disconnect harness connector (2) from LCH connector (3).
   b. Remove screw (4), lockwashers (5), (6) and electrical lead (7) from LCH (1).
   c. Remove four screws (8), lockwashers (9) and washers (10) attaching two brackets (11) to four mounting bosses (12).
   d. Remove LCH (1).
   e. Remove four screws (13), lockwashers (14), washers (15) and two brackets (11) from LCH (1).
2. IF REMOVING DRIVER'S LCH (1), INSPECT ELECTRICAL LEAD (7). IF DAMAGED, DO STEP 3.
3. REMOVE SCREW (16) AND TWO LOCKWASHERS (17) ATTACHING ELECTRICAL LEAD (7) TO BOSS (18).
4. INSPECT PARTS FOR DAMAGE. REPLACE AS REQUIRED.

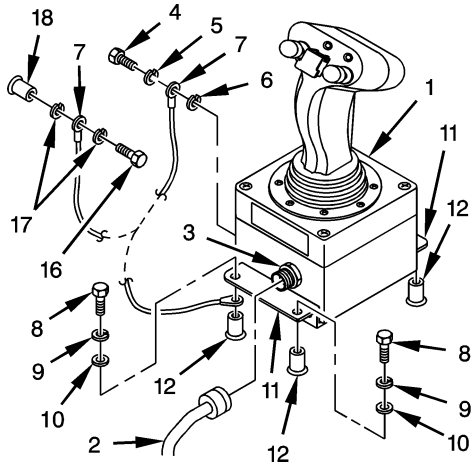


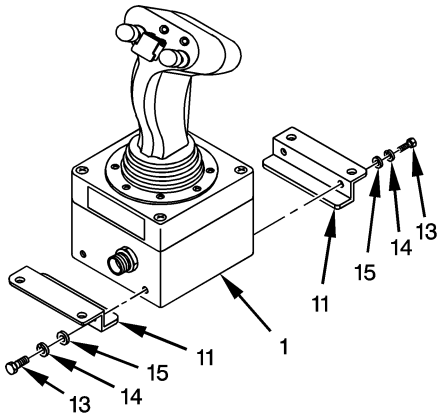
INSTALLATION:

NOTE

If driver's LCH electrical lead (7) was removed, do step 1.

1. POSITION ELECTRICAL LEAD (7) ON BOSS (18) AND INSTALL SCREW (16) AND TWO NEW LOCKWASHERS (17).
2. INSTALL LCH (1).
   a. Install two brackets (11), four screws (13), new lockwashers (14) and washers (15) on LCH (1).
   b. Torque four screws (13) between 85-110 in-lb (9-16 N•m).
   c. Position LCH (1) with brackets (11) over four mounting bosses (12).
   d. Install four screws (8), washers (10) and new lockwashers (9) to brackets (11) and mounting bosses (12).
   e. Torque four screws (8) between 85-110 in-lb (9-16 N•m).
   f. Install screw (19), new lockwashers (5), (6) to attach electrical lead (7) to LCH (1).
   g. Join harness connector (2) to connector (3) on LCH (1).
3. CONNECT VEHICLE POWER (PAGE 9-186).





End of Task

3h1226

COMMANDERS ELECTRONIC UNIT REPLACEMENT (Sheet 1 of 1)

TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)

EQUIPMENT CONDITION: Tank power disconnected (page 9-159)
Rifle rack removed (page 19-119)

REMOVAL:

1. REMOVE COMMANDERS ELECTRONIC UNIT (CEU) (1).
   a. Remove 6 harness connectors (2) from receptacle connectors (3).
   b. Remove screw (4), washer (5) and jumper (6), from CEU (1).
   c. Remove four screws (7), washers (8) and CEU (1).

NOTE

If CEU is removed for access only, task ends here.

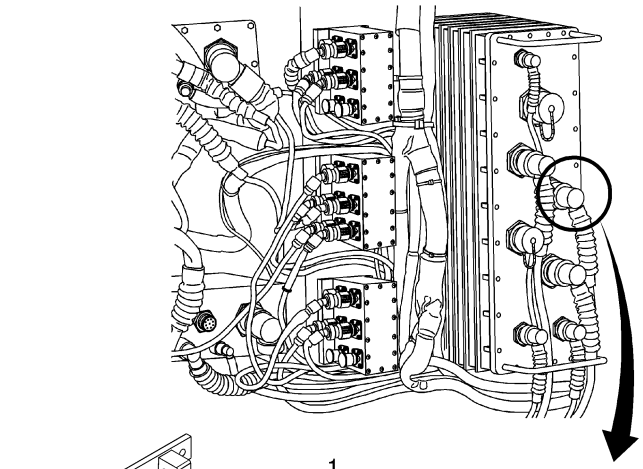
2. REMOVE FOUR SCREWS (9), WASHERS (10), SHOCK MOUNTS (11) AND TWO MOUNT PLATES (12).
3. INSPECT PARTS FOR DAMAGE. REPLACE AS REQUIRED.

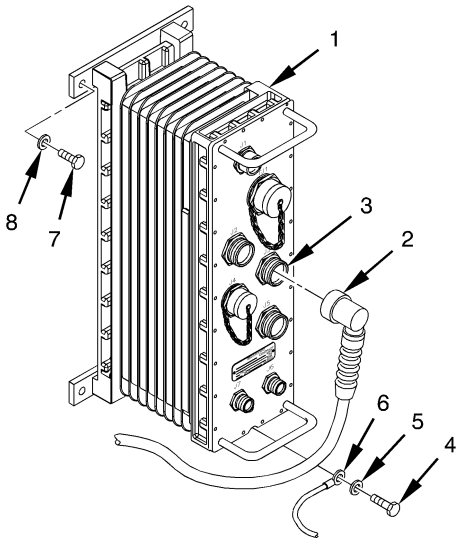
INSTALLATION:

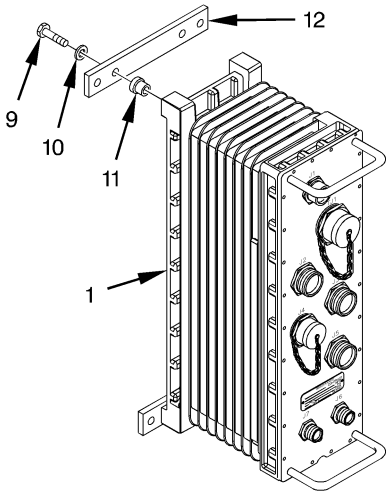
NOTE

If CEU mount plates (12) were removed, do step 1.

1. INSTALL TWO MOUNT PLATES (12), FOUR SHOCK MOUNTS (11), WASHERS (10) AND SCREWS (9) TO CEU (1).
2. INSTALL CEU (1).
   a. Position CEU to wall and install four screws (7) and washers (8).
   b. Install screw (4), washer (5), and jumper (6) to CEU (1).
   c. Connect 6 connectors (2) to receptacle connectors (3).
3. INSTALL RIFLE RACK (PAGE 19-119).
4. CONNECT TANK POWER (PAGE 9-186).
5. DATA LOAD/VERIFY VEHICLE SOFTWARE (PAGE 9-383).







End of Task 3h1366

MASTER CONTROL STATION AMPLIFIER REPLACEMENT (Sheet 1 of 1)

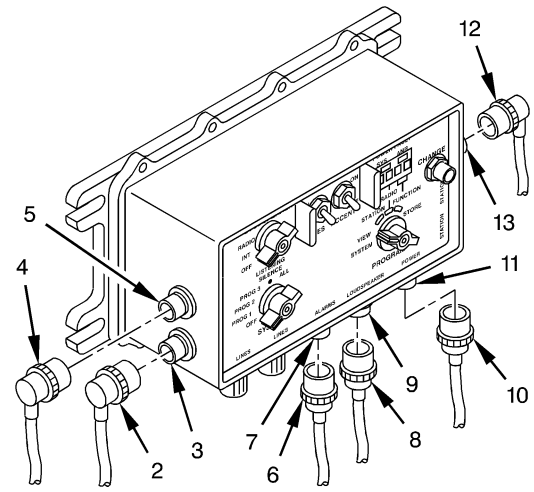
TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)

SUPPLIES: Lockwasher (Item 111, Appendix G) (4 required)

EQUIPMENT CONDITION: Vehicle power disconnected (page 9-159)

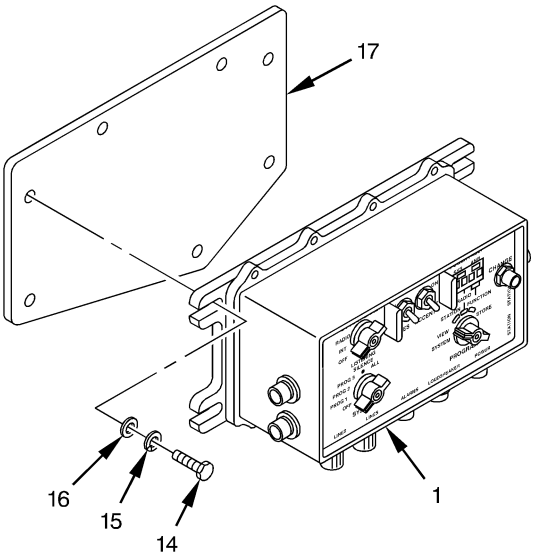
REMOVAL:

1. REMOVE MASTER CONTROL STATION AMPLIFIER (1).
   a. Disconnect harness connector 1W311-5 P1 (2) from connector J1 (3), harness connector 1W311-5 P2 (4) from connector J2 (5), and harness connector 2W142-10 P2 (6) from connector J3 (7) on amplifier (1).
   b. Disconnect harness connector 2W311-5 P2 (8) from connector J4 (9), harness connector 2W107-10 P6 (10) from connector J5 (11), and harness connector 2W312-5 P2 (12) from connector J6 (13) on amplifier (1).
   c. Remove four screws (14), lockwashers (15), washers (16), and amplifier (1) from bracket (17).
2. INSPECT PARTS FOR DAMAGE. REPLACE AS REQUIRED.



INSTALLATION:

1. INSTALL AMPLIFIER (1).
   a. Position amplifier (1) on bracket (17) and install four screws (14), new lockwashers (15) and washers (16).
   b. Join harness connector 1W311-5 P1 (2) to connector J1 (3), harness connector 1W311-5 P2 (4) to connector J2 (5), and harness connector 2W142-10 P2 (6) to connector J3 (7) on amplifier (1).
   c. Join harness connector 2W311-5 P2 (8) to connector J4 (9), harness connector 2W107-10 P6 (10) to connector J5 (11), and harness connector 2W312-5 P2 (12) to connector J6 (13) on amplifier (1).
2. CONNECT VEHICLE POWER (PAGE 9-186).



End of Task 3h1369

COMMANDER'S INTERCOM CONTROL BOX AND BRACKET REPLACEMENT (Sheet 1 of 1)

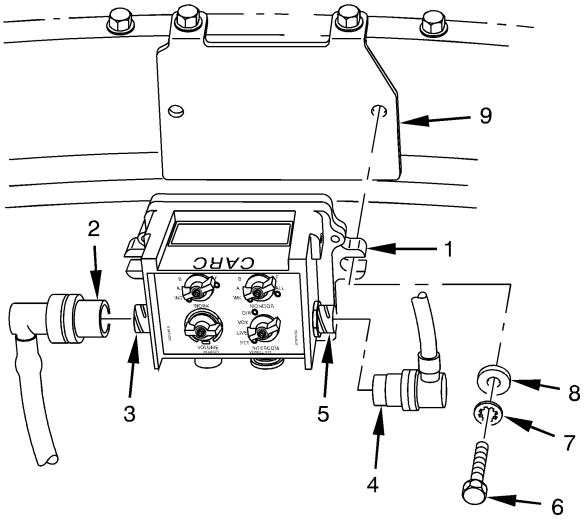
TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)

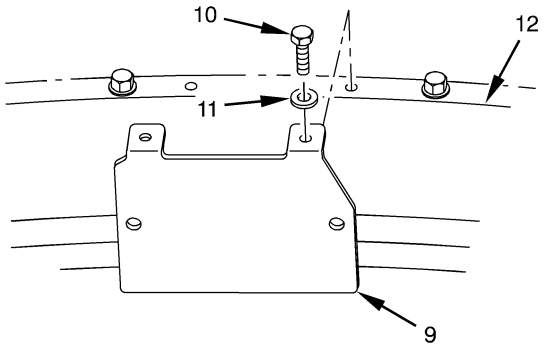
SUPPLIES: Lockwasher (Item 117, Appendix G) (4 required)

EQUIPMENT CONDITION: Vehicle power disconnected (page 9-159)

REMOVAL:

1. REMOVE COMMANDER'S INTERCOM CONTROL BOX (1).
   a. Disconnect harness connector 2W301-5 P2 (2) from J1 receptacle (3).
   b. Disconnect harness connector 2W302-5 P2 (4) from J4 receptacle (5).
   c. Remove two screws (6), lockwashers (7), and washers (8) attaching box (1) to bracket (9).
2. INSPECT BRACKET (9) FOR DAMAGE. DO STEP 3 TO REPLACE BRACKET IF DAMAGED.
3. REMOVE TWO SCREWS (10), LOCKWASHERS (11), AND BRACKET (9) FROM COMMANDER'S STATION (12).
4. INSPECT PARTS FOR DAMAGE. REPLACE AS REQUIRED.





INSTALLATION:

NOTE

Do step 1 only if bracket (9) was taken off at removal.

1. POSITION BRACKET (9) ON COMMANDER'S STATION (12). INSTALL TWO SCREWS (10) AND NEW LOCKWASHERS (11) TO ATTACH BRACKET (9).
2. INSTALL COMMANDER'S INTERCOM CONTROL BOX (1).
   a. Position box (1) on bracket (9). Install two screws (6), new lockwashers (7), and washers (8) to attach box (1).
   b. Connect harness connector 2W302-5 P2 (4) to J4 receptacle (5).
   c. Connect harness connector 2W301-5 P2 (2) to J1 receptacle (3).
3. CONNECT VEHICLE POWER (PAGE 9-186).

End of Task 3h1645

DRIVER'S INTEGRATED DISPLAY (DID) SWITCH GUARDS REPLACEMENT (Sheet 1 of 1)

TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)

SUPPLIES: Machine screw (Item 558, Appendix G) (as required)

EQUIPMENT CONDITION: Driver's hatch open (TM 5-5420-232-10)
Drivers' integrated display (DID) guard removed (page 9-396.2)

REMOVAL:

1. REMOVE GUARD (1).
   a. Remove four screws (2) and washers (3) from guard (1).
   b. Remove guard (1) from DID (4).

   NOTE

   If DID (4) is being replaced, do step c.

   c. Install four screws (2) and washers (3) to DID (4).
2. REMOVE SHORT GUARD (5).
   a. Remove four screws (6) and washers (7) from guard (5).
   b. Remove guard (5) from DID (4).

   NOTE

   If DID (4) is being replaced, do step c.

   c. Install four screws (6) and washers (7) to DID (4).
3. INSPECT PARTS FOR DAMAGE. REPLACE AS REQUIRED.

INSTALLATION:

1. POSITION SHORT GUARD (5) ON DID (4). INSTALL FOUR SCREWS (6) AND WASHERS (7).

   NOTE

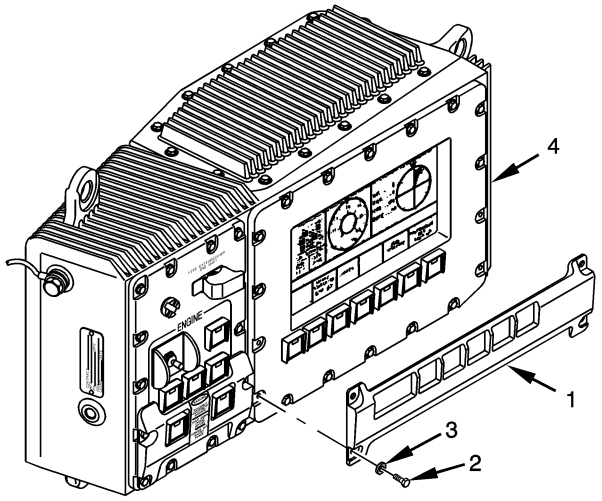
   If DID (4) is new, do step a.

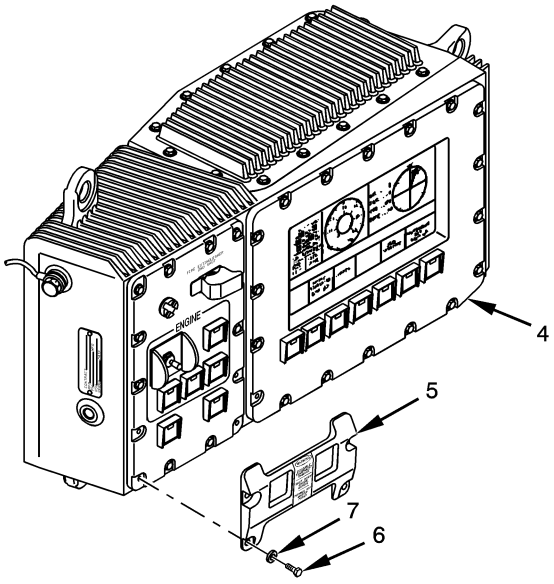
   a. Remove four screws (6) and washers (7) from DID (4) and discard screws (6). Get four new (longer) screws (6).
   b. Position guard (5) on DID (4).
   c. Install four screws (6) and washers (7) to guard (5) and DID (4).
2. POSITION GUARD (1) ON DID (4). INSTALL FOUR SCREWS (2).

   NOTE

   If DID (4) is new, do step a.

   a. Remove four screws (2) and washers (3) from DID (4) and discard screws (2). Get four new (longer) screws (2).
   b. Position guard (1) on DID (4).
   c. Install four screws (2) and washers (3) to guard (1) and DID (4).
3. INSTALL DRIVER'S INTEGRATED DISPLAY (DID) GUARD (PAGE 9-396.2).





End of Task

3w6402

DRIVER'S INTEGRATED DISPLAY (DID) GUARD REPLACEMENT (Sheet 1 of 1)

TOOLS: General mechanic's tool kit: automotive (SC 5180-90-N26)
Torque wrench, 0-175 lb-ft (Item 324, Appendix E)

SUPPLIES: Sealing compound (Item 109, Appendix C)

REMOVAL:

1. REMOVE GUARD (1).

   Remove two screws (2), washers (3) and four shock mount halves (4) from display (5).

2. INSPECT PARTS FOR DAMAGE. REPLACE AS REQUIRED.

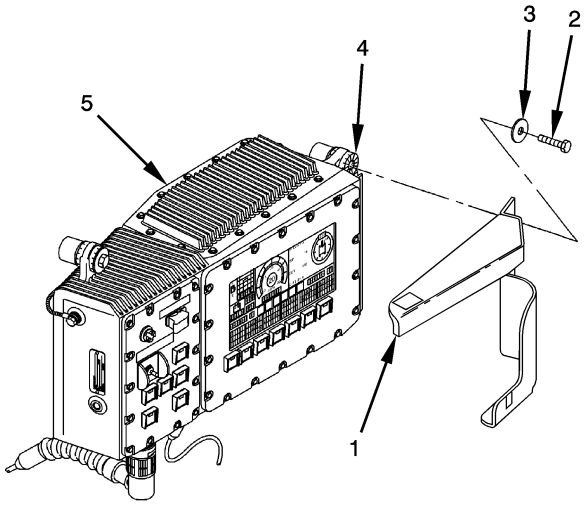
INSTALLATION:

INSTALL GUARD (1). TORQUE SCREWS (1) BETWEEN 36-43 LB-FT (49-58 N•m).

   a. Install four shock mount halves (4) on display (5).

   b. Apply sealing compound to two screws (2). Install guard (1), two screws (2) and washers (3) on display (5).

   c. Torque screws (2) between 36-43 lb-ft (49-58 N•m).



End of Task 3w5372

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PUBLICATION/FORM NUMBER	DATE	TITLE

ITEM	PAGE	PARA-GRAPH	LINE	FIGURE NO.	TABLE	RECOMMENDED CHANGES AND REASON

* *Reference to line numbers within the paragraph or subparagraph.*

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PAGE NO.	COLM NO.	LINE NO.	NATIONAL STOCK NUMBER	REFERENCE NO.	FIGURE NO.	ITEM NO.	TOTAL NO. OF MAJOR ITEMS SUPPORTED	RECOMMENDED ACTION

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ITEM	PAGE	PARA-GRAPH	LINE	FIGURE NO.	TABLE	RECOMMENDED CHANGES AND REASON

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ITEM	PAGE	PARA-GRAPH	LINE	FIGURE NO.	TABLE	RECOMMENDED CHANGES AND REASON

** Reference to line numbers within the paragraph or subparagraph.*

TYPED NAME, GRADE OR TITLE	TELEPHONE EXCHANGE/AUTOVON, PLUS EXTENSION	SIGNATURE

TO: *(Forward direct to addressee listed in publication)*	**FROM:** *(Activity and location) (Include ZIP Code)*	**DATE**

PART II - REPAIR PARTS AND SPECIAL TOOL LISTS AND SUPPLY CATALOGS/SUPPLY MANUALS

PUBLICATION NUMBER	DATE	TITLE

PAGE NO.	COLM NO.	LINE NO.	NATIONAL STOCK NUMBER	REFERENCE NO.	FIGURE NO.	ITEM NO.	TOTAL NO. OF MAJOR ITEMS SUPPORTED	RECOMMENDED ACTION

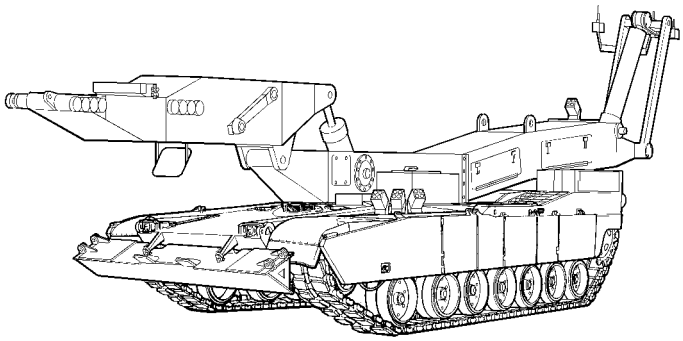
PART III - REMARKS *(Any general remarks or recommendations, or suggestions for improvement of publications and blank forms. Additional blank sheets may be used if more space is needed.)*

TYPED NAME, GRADE OR TITLE	TELEPHONE EXCHANGE/AUTOVON, PLUS EXTENSION	SIGNATURE

TECHNICAL MANUAL

UNIT MAINTENANCE MANUAL

VOLUME 3 OF 5



BRIDGE LAUNCHING CARRIER M104 WOLVERINE (5420-01-430-5403)

HEADQUARTERS, DEPARTMENT OF THE ARMY **MARCH 2001**